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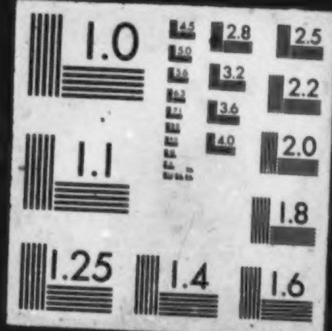
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Water Resources Data for Colorado
Water Year 1985. Volume 1
Missouri River Basin, Arkansas River Basin, and Rio Grande Basin

(U.S.) Geological Survey, Lakewood, CO

Jun 86

U.S. Department of Commerce
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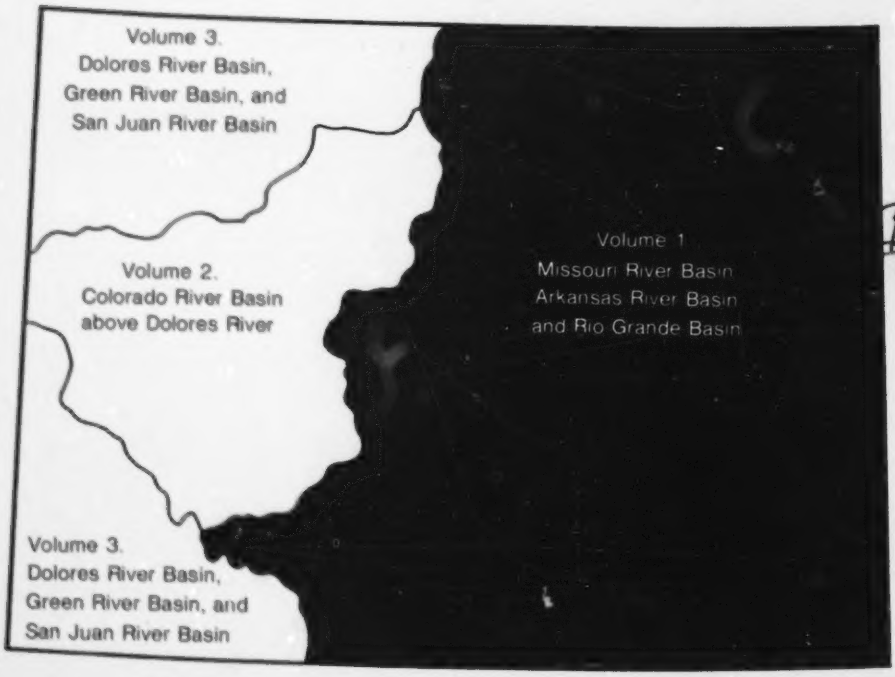
U.S. Department of the Interior
March 3, 1849

State of Colorado
1876

Water Resources Data Colorado Water Year 1985

Volume 1. Missouri River Basin, Arkansas River Basin, and Rio Grande Basin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Green River Basin, and
San Juan River Basin
Volume 2.
Colorado River Basin
above Dolores River
Volume 1
Missouri River Basin
Arkansas River Basin
and Rio Grande Basin
Volume 3.
Dolores River Basin,
Green River Basin, and
San Juan River Basin

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U.S. GEOLOGICAL SURVEY WATER-DATA REPORT CO-85-1
Prepared in cooperation with the State of Colorado
and with other agencies

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U.S. DEPARTMENT OF COMMERCE
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SPRINGFIELD, VA. 22161

CALENDAR FOR WATER YEAR 1985

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March 3, 1849

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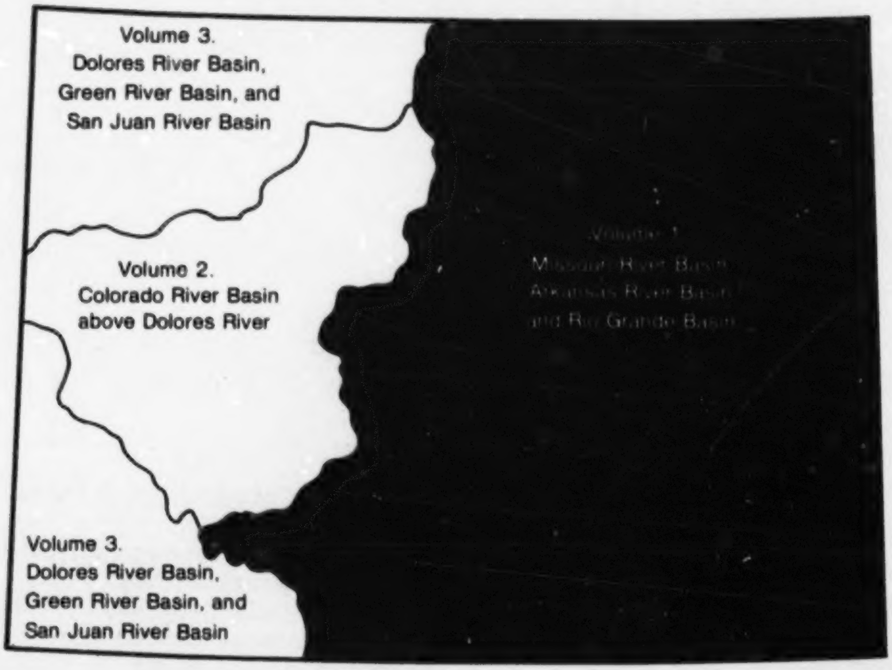
Water Resources Data Colorado Water Year 1985

Volume 1. Missouri River Basin, Arkansas River Basin, and Rio Grande Basin

by R.C. Ugland, A.C Duncan, R.D. Steger, and J.L. Ebling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Missouri River Basin
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and Rio Grande Basin
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Green River Basin, and
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Prepared in cooperation with the State of Colorado
and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

DONALD PAUL HODEL, Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For information on the water program in Colorado write to:

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U.S. Geological Survey
Box 25046, Mail Stop 415
Denver Federal Center
Lakewood, Co 80225

1986

PREFACE

This volume of the annual hydrologic data report of Colorado is one of a series of annual reports that document hydrologic data gathered from the U. S. Geological Survey's surface- and ground-water data-collection networks in each state, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and quality of water provide the hydrologic information needed by State, local, and Federal agencies, and the private sector for developing and managing our Nation's land and water resources. Hydrologic data for Colorado are contained in three volumes:

Volume 1. Missouri River, Arkansas River, and Rio Grande basins in Colorado,
Volume 2. Colorado River Basin in Colorado, above the Dolores River, and
Volume 3. Dolores River, Green River, and San Juan River basins in Colorado.

This report is the culmination of a concerted effort by dedicated personnel of the U. S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data:

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Water-resources data for Colorado for the 1985 water year consist of records of stage, discharge, and water quality of streams; stage, contents and water quality of lakes and reservoirs; and water levels and water discharge records for 351 gaging stations, stage and contents of 25 lakes and reservoirs, 4 partial-record low-flow stations, peak flow information for 34 crest-stage partial record stations, and 1 miscellaneous site; water quality for 104 gaging stations and 256 miscellaneous sites; and water levels for 53 observation wells. Six pertinent stations in bordering States also are included in this report. The records were collected and computed by the Water Resources Division of the U.S. Geological Survey under the direction of J. F. Blakey, District Chief. These data represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies.

17. Document Analysis a. Descriptors
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Partial tables: (c) chemical, (b) biological, (m) microbiological, (s) sediment, (t) temperature)

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WATER RESOURCES DATA FOR COLORADO, 1985

VOLUME 1: MISSOURI RIVER, ARKANSAS RIVER, AND RIO GRANDE BASINS

By R. C. Ugland, A. C. Duncan, R. D. Steger, and J. L. Ebling

INTRODUCTION

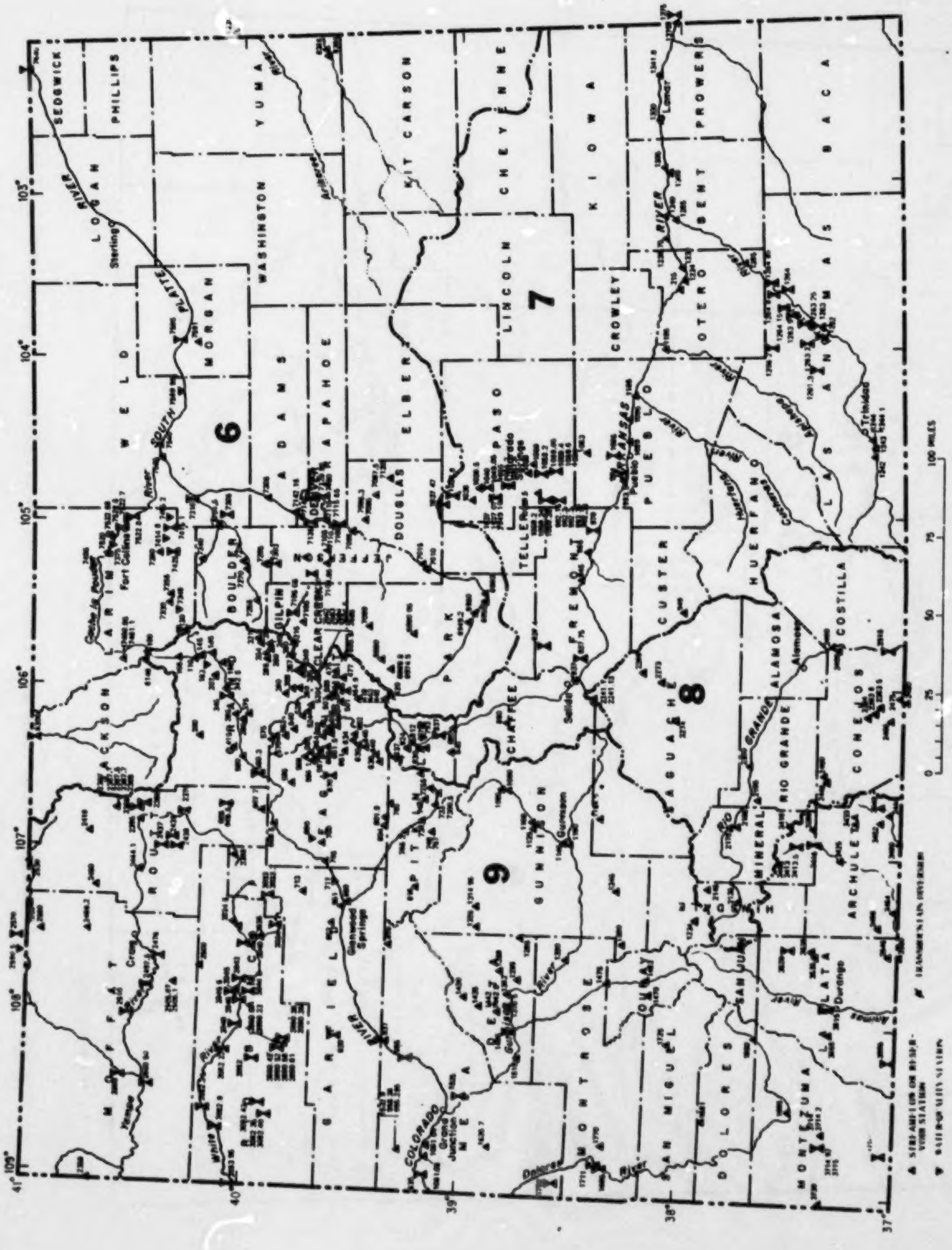
Water-resources data for the 1985 water year for Colorado consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of wells and springs. This report (volumes 1, 2, and 3) contains discharge records for 351 streamflow-gaging stations, stage and contents of 25 lakes and reservoirs, low-flow data for 4 partial-record stations, peak flow information for 34 crest-stage partial-record stations and 1 miscellaneous site; water-quality data for 104 streamflow-gaging stations and 256 miscellaneous sites; and water levels for 53 observation wells. Locations of lake- and streamflow-gaging stations and water-quality stations are shown in figure 1, locations of crest-stage partial-record stations are shown in figure 2, and locations of observation wells are shown in figure 3. Six pertinent stations in bordering States also are included in this report. The records were collected and computed by the Colorado District. These data were collected by the U.S. Geological Survey and cooperating State and Federal agencies in Colorado and represent that part of the National Water Data System.

Records of discharge and stage of streams, and contents and stage of lakes and reservoirs are published in a series of U.S. Geological Survey Water-Supply Papers entitled, "Surface-water Supply of the United States." These water-supply papers were published in an annual series through September 30, 1960, and then in 5-year compilations for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1955 in an annual series of water-supply papers entitled "Water Levels and Artesian Pressures in Wells in the United States," and from 1955 to the present time, in a 5-year series of water-supply papers entitled "Ground-Water Levels in the United States." Water-supply papers may be purchased from Eastern Distribution Branch Text Products Section, U.S. Geological Survey, 604 South Pickett Street, Alexandria, VA 22304.

For water years 1961 through 1970, streamflow data were released by the Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1970 were similarly released either in separate reports or in conjunction with streamflow records.

Beginning with the 1971 water year, water data on streamflow, water quality, and ground water are published in official survey reports on a State-boundary basis. These official Survey reports carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report CO-85-1." These water-data reports are for sale, in paper copy or in microfiche, by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (303) 236-4882.



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Dolores River
Gunnison River
White River
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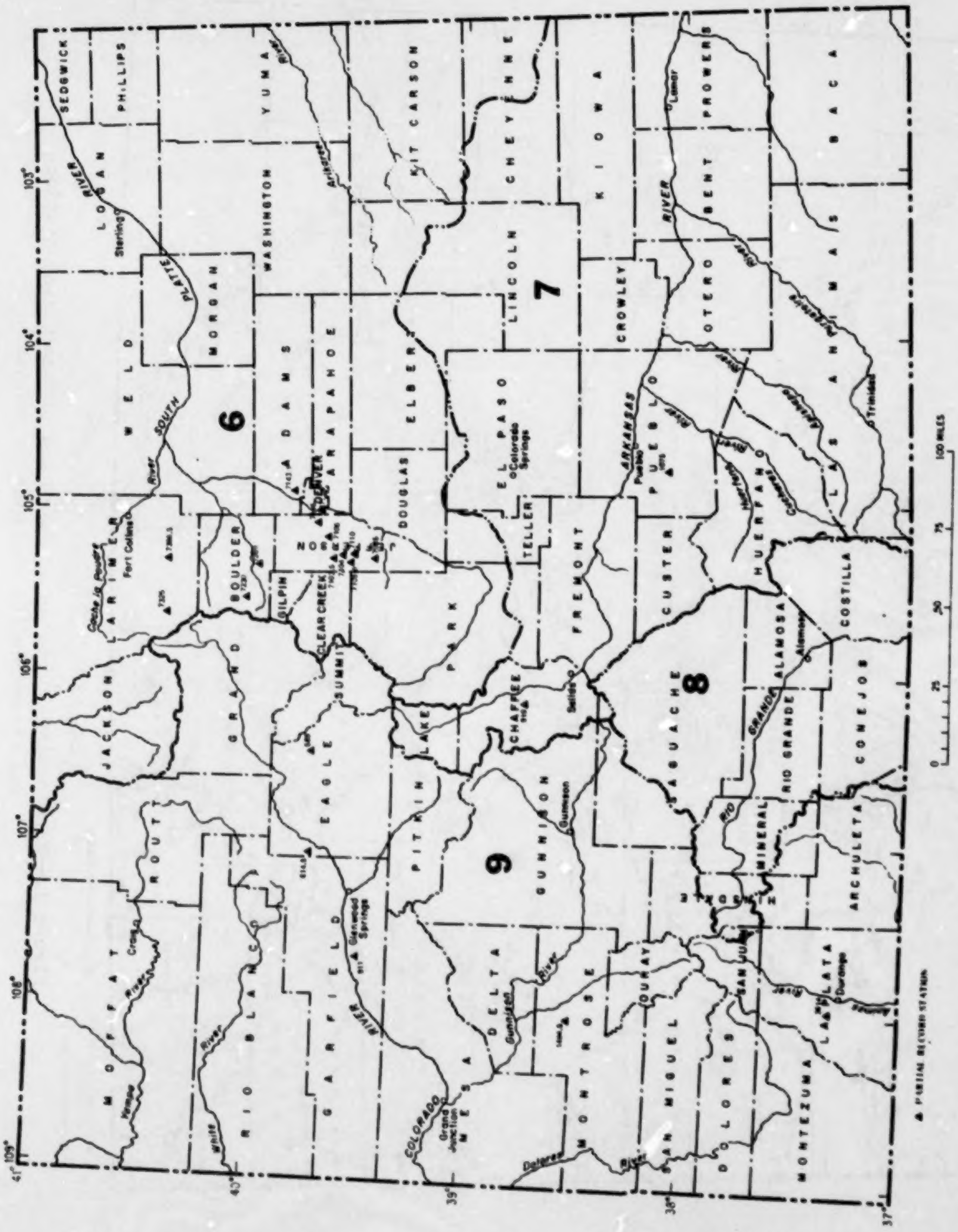
▲ STREAM-GAGING OR RESERVOIR STATION
▼ WATER-QUALITY STATION

Figure 1.--Map showing locations of lakes and stream-gaging stations and water-quality stations in Colorado.



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▲ PARTIAL RECORD STATION

Figure 2.--Map showing locations of crest-stage partial-record stations in Colorado.

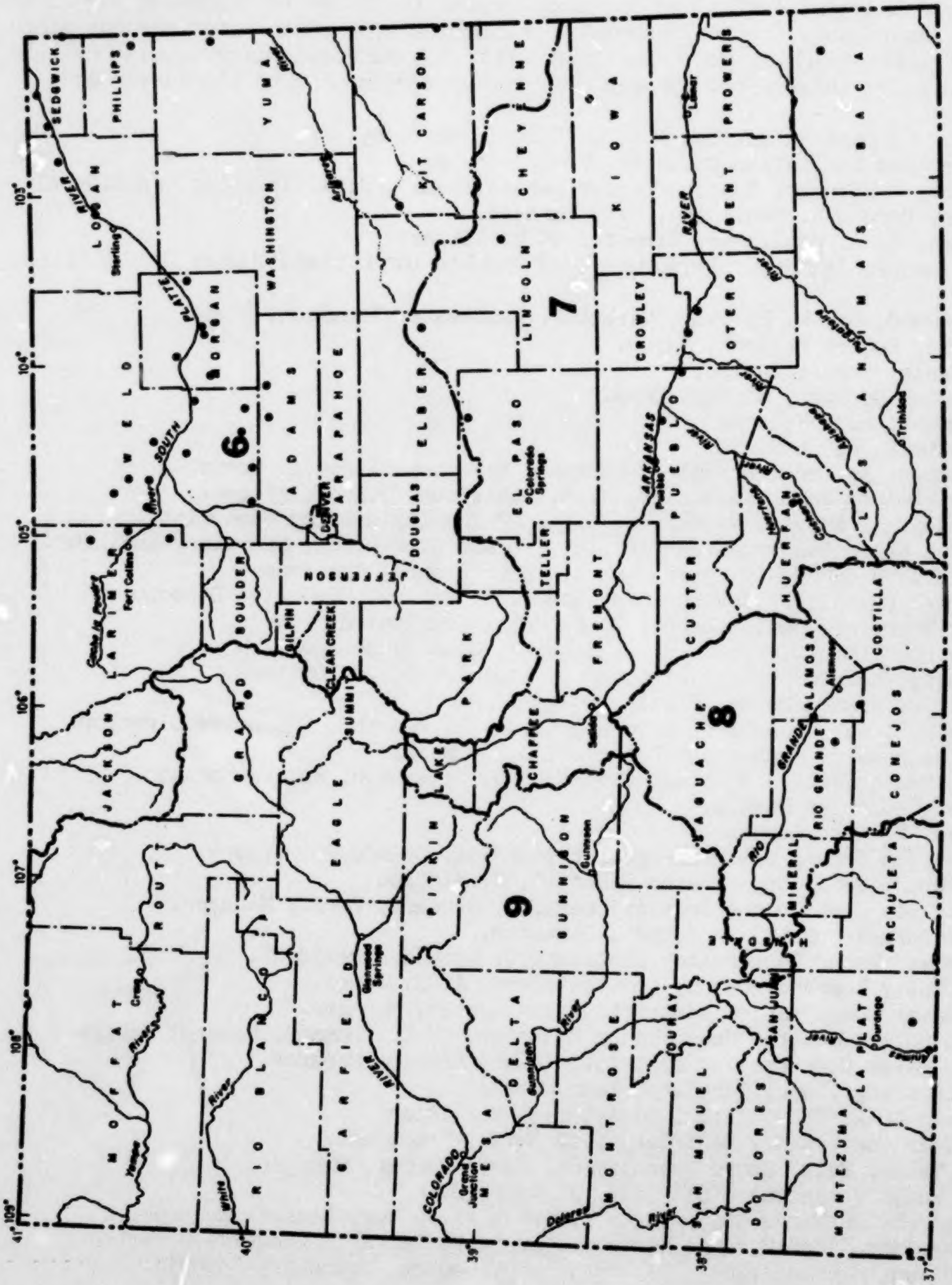
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Figure 3.--Location of observation wells in Colorado.

COOPERATION

The U.S. Geological Survey and organizations of the State of Colorado have had cooperative agreements for the systematic collection of surface-water records since 1895 and for water-quality records since 1941. Organizations that assisted in collecting data for this report through cooperative agreement with the Survey are:

Arkansas River Compact Administration, L. Idler, Secretary.
Cherokee Water and Sanitation District, F. S. Loosley.
City and County of Denver, Board of Water Commissioners, J. A. Yelenick, President.
City of Aspen, Harold L. Schilling, City Manager.
City of Aurora, C. A. Wemlinger, Director of Utilities.
City of Colorado Springs, Department of Public Utilities, James D. Phillips, Director.
City of Englewood, Dr. W. F. Owen, Director, Wastewater Treatment Plant.
City of Fruita, Robert Pollock, Mayor.
City of Glendale, Robert Taylor.
City of Glenwood Springs, Michael Capp.
City of Longmont, Linn Folsom.
City of Thornton, Joseph Vigil.
City of Steamboat Springs, Daniel J. Hartman, Director of Public Works.
Colorado Division of Water Resources, J. A. Danielson, State Engineer.
Colorado Geological Survey, Walter R. Junge, Senior Engineering Geologist.
Colorado River Water Conservation District, Roland C. Fischer, Secretary-Engineer.
Delta County Board of County Commisioners, Roger Blouch, Chairman.
Denver Regional Council of Governments, Robert D. Farley, Executive Director.
Eagle County Board of Commissioners, D. E. Mott, Commissioner.
Evergreen Metropolitan District, G. C. Schulte, General Manager.
Garfield County, Rodger Ludwig, Director of Administrative Services.
Grand County, R. Howard Moody, County Manager.
Larimer-Weld Regional Council of Governments, L. L. Pearson, Executive Director.
Lost Creek Groundwater Management District, G. H. Bush.
Metropolitan Denver Sewage Disposal District No. 1, Jack B. Enger, Manager.
Mineral County, Charles Steele.
Moffat County, Richard Gibbons.
North Kiowa-Bijou Ground Water Management District, Donald F. McClary.
Northern Colorado Water Conservancy District, L. Simpson.
Pitkin County Board of County Commissioners, C. Stewart, County Manager.
Pueblo Civil Defense, Betty Jo Hopper, Director.
Purgatoire River Water Conservancy District, C. Latuda, President.
Rio Blanco County Board of County Commissioners, A. J. Jones.
Rio Grande Water Conservation District, Ralph Curtis, Manager.
Southeastern Colorado Water Conservancy District, C. L. Thomson, General Manager.
Southwestern Water Conservation District, Edward Searle, Manager.
Town of Breckenridge, Gary Martinez, Town Manager.
Town of Castle Rock, Tom Gallier, Director of Utilities.
Trinchera Water Conservancy District, Lyle Smith, President.
Uncompahgre Valley Water Users Association, James Herbit, Manager.
Upper Yampa Water Conservancy District, J. Fetcher.
Upper Arkansas River Water Conservancy District, K. Baker, General Manager.
Urban Drainage and Flood Control District, L. Scott Tucker, Executive Director.
Yellow Jacket Water Conservancy District, F. G. Cooley, Secretary-Council.

COOPERATION

Financial assistance was also provided by the U.S. Army, Corps of Engineers, U.S. Army; U.S. Air Force; Bureau of Indian Affairs, Bureau of Land Management, Bureau of Mines, Bureau of Reclamation, the National Park Service, and the U.S. Environmental Protection Agency. Organizations that supplied data are acknowledged in station descriptions.

HYDROLOGIC CONDITIONS

PRECIPITATION

Precipitation during the 1985 water year generally was, greater than normal throughout the Missouri River, Arkansas River, and Rio Grande basins in Colorado. This greater than normal precipitation represents a continuation of the pattern from the preceding water year.

Precipitation data from published reports of the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Weather Service, for three major basins in Colorado are shown in table 1.

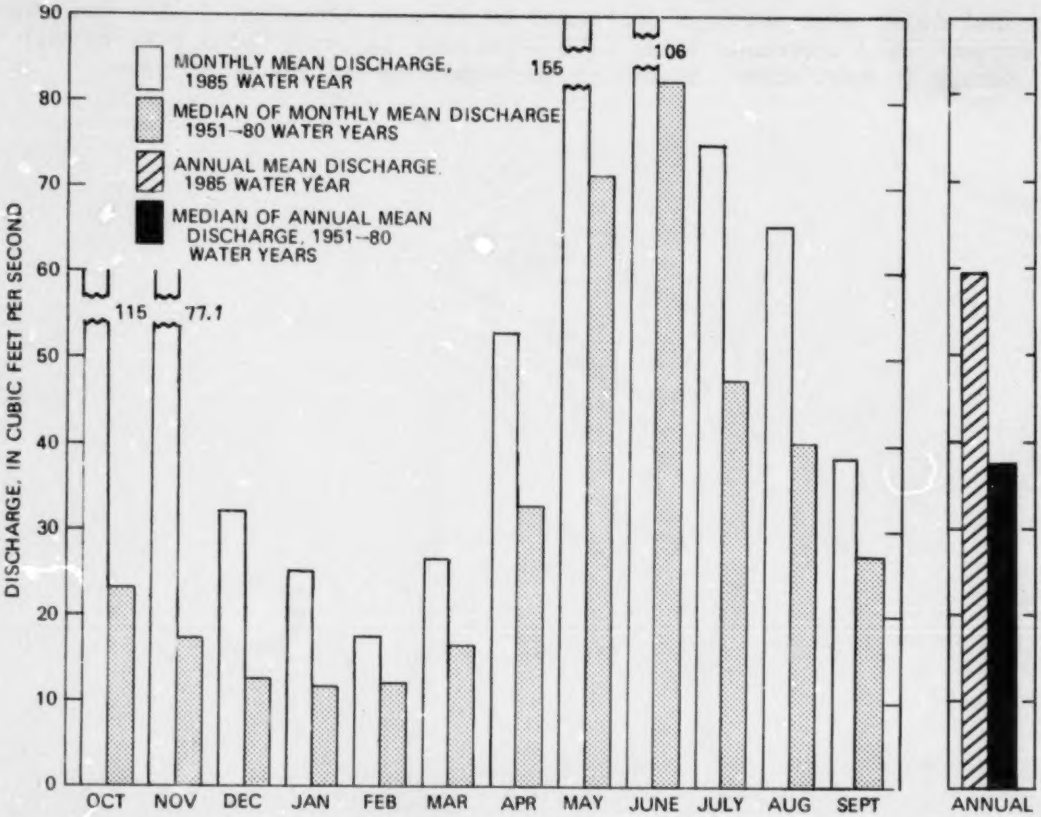
Table 1.--Precipitation during the 1985 water year and departures from normal precipitation, in inches

Drainage basin	October--March		April--September		Water year	
	Precipitation	Departure-	Precipitation	Departure	Precipitation	Departure
Missouri River						
South Platte River-	5.53	+1.35	11.25	+0.42	16.78	+1.77
Kansas River-------	3.85	+0.54	13.75	+0.96	17.60	+1.50
Arkansas River---------	5.47	+1.48	10.88	+0.61	16.35	+2.09
Rio Grande-------------	6.55	+1.85	9.25	+2.25	15.80	+4.10

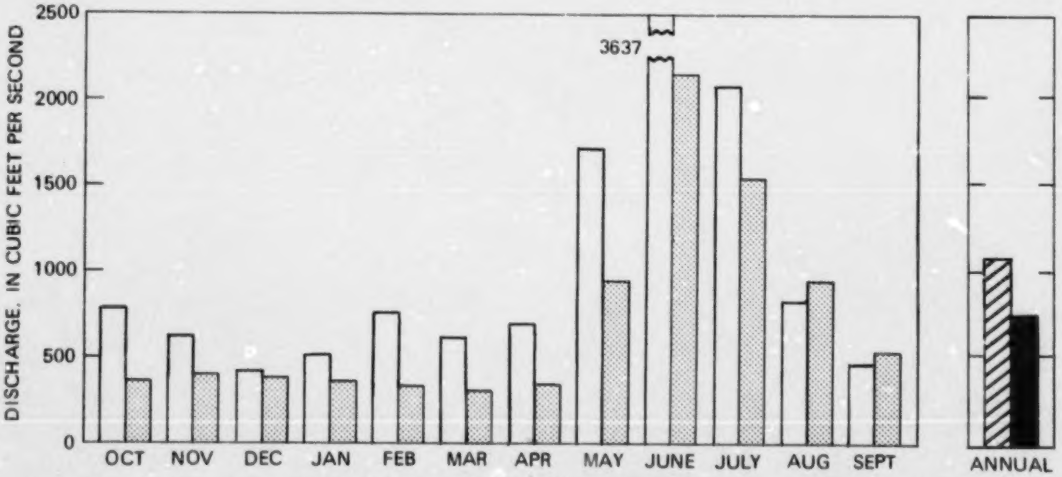
STREAMFLOW

Streamflow in the three major river basins, Missouri River, Arkansas River, and the Rio Grande, was greater than normal throughout the entire water year. Monthly and annual mean discharges for the 1985 water year are compared with the median monthly and annual discharges for the 1951-1980 water years for selected stations in figure 4. The monthly mean discharge for the 1985 water year at station 06710500, Bear Creek at Morrison (fig. 4A), ranged from 129 percent of normal during June to 498 percent of normal during October. The 1985 annual mean discharge was 176 percent of normal compared to 221 percent of normal during the 1984 water year. The monthly mean discharge for the 1985 water year at station 07094500, Arkansas River at Parkdale (fig. 4B), ranged from 87 percent of normal during August to 231 percent of normal during February. The 1985 annual mean discharge was 143 percent of normal compared to 166 percent of normal during the 1984 water year. The monthly mean discharge for the 1985 water year at station 08220000, Rio Grande near Del Norte, (fig. 4C), ranged from 133 percent of normal during February to 429 percent of normal during July. The 1985 annual mean discharge was 178 percent of normal as compared to 136 percent of normal during the 1984 water year.

Year-end reservoir storage decreased to 533,300 acre-feet in the Colorado-Big Thompson Project, and increased to 277,700 acre-feet in John Martin Reservoir. In general, storage in most other reservoirs increased during the water year.

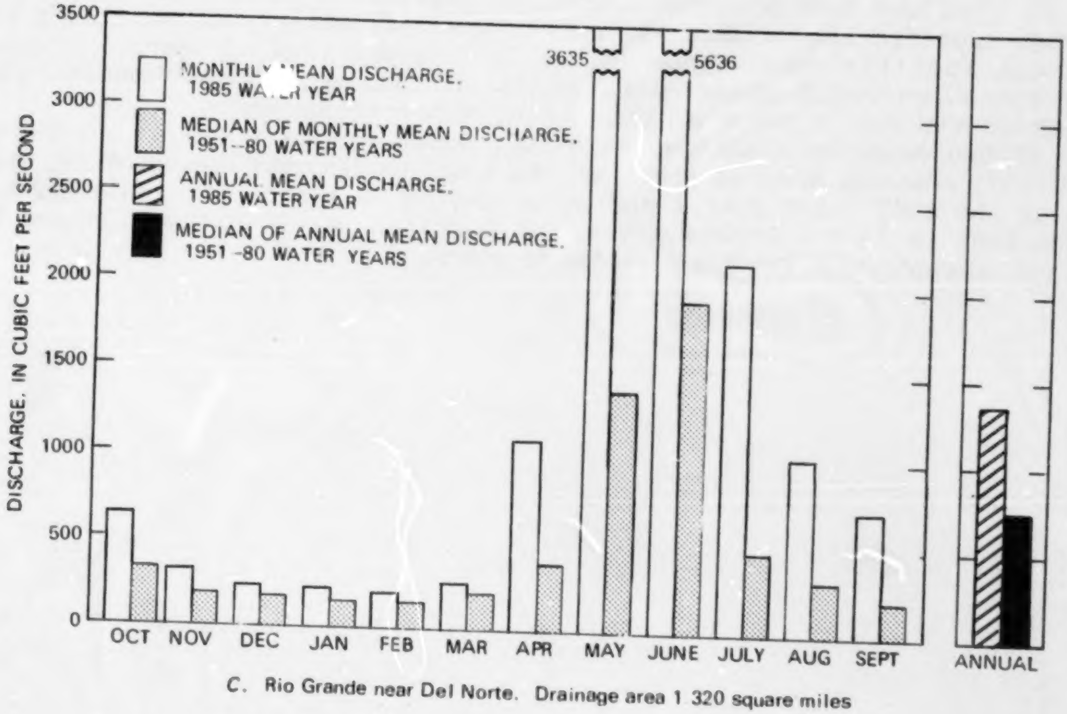


A. Bear Creek at Morrison. Drainage area 164 square miles



B. Arkansas River at Parkdale. Drainage area 2,548 square miles

Figure 4.--Discharge for 1985 water year compared with median discharge for 1951-80 water years at three representative streamflow-gaging stations.



C. Rio Grande near Del Norte. Drainage area 1 320 square miles

Figure 4.--Discharge for 1985 water year compared with median discharge for 1951-80 water years at three representative streamflow-gaging stations--Continued.

Chemical Quality of Streamflow

Runoff in the Missouri River basin was slightly less than each of the previous 2 years. Large total aluminum concentrations and small trace concen- trations of mercury were again detected in the Cache La Poudre and Big Thompson Rivers. The overall water-quality of the two rivers remained virtually unchanged from previous years. A fourth consecutive year of greater than normal precipitation in the Arkansas River basin resulted in higher runoff and baseflow in the Arkansas River and most tributaries. In general, the higher flows usually resulted in smaller concentrations of chemical constituents, and thus smaller concentrations of dissolved solids than have been determined during the previous 10 years (tables 2 and 3). The average specific conductance values for the 1985 water year were less than the average specific conductance values for the previous 10 years. However, the increased flows during spring runoff generally resulted in larger concentrations of suspended sediment in the basin than during most previous years.

At two selected stations, 06764000, South Platte River at Julesburg and 07097000, Arkansas River at Portland, the total phosphorous concentration was larger during the 1985 water year than the preceding 10 years. The average sediment concentration in the Arkansas River at Portland was four times larger than the average concentration for the previous 10 years.

Table 2.--1985 Water year average values for selected constituents

(CFS, cubic foot per second; US/CM, micromhos per centimeter; MG/L, milligrams per liter)

STATION NUMBER NAME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHOROUS, TOTAL (MG/L AS P)	HARDNESS (MG/L AS CACO3)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SEDIMENT, SUSPENDED (MG/L)
06710000 South Platte River at Littleton----	545	366	---	0.04	170	237	---
06730500 Boulder Cr at Mouth near Longmont---	82	566	---	----	200	349	---
06741480 Big Thompson River above Loveland--	104	457	---	----	220	239	---
06741510 Big Thompson River at Loveland-----	86	550	---	----	260	326	---
06752258 Cache la Poudre River at Shields Street at Ft Collins-	155	197	---	----	86	46	---
06752260 Cache la Poudre River at Ft Collins---	126	244	---	----	110	58	---
06752270 Cache la Poudre River below Ft Collins	87	427	---	----	160	69	---
06752280 Cache la Poudre River above Boxelder Creek near Timnath--	78	805	---	----	350	130	---
06764000 South Platte River at Julesburg----	1110	1460	---	.52	530	1030	431
07083000 Halfmoon Creek near Malta------	38	74	---	.01	37	31	8
07097000 Arkansas River at Portland-----	1860	382	---	.53	160	242	753
07103700 Fountain Creek near Colorado Springs	21	256	1.30	----	---	---	954
07104000 Monument Creek at Pikeview--------	42	295	2.06	----	---	---	2190
07105500 Monument Creek at Colorado Springs	89	412	2.14	----	120	210	1920
07105905 Fountain Creek above Little Fountain Creek below Fountain	184	844	6.17	----	220	450	---
07106300 Fountain Creek near Pinon-----------	197	980	---	----	290	620	---
07106500 Fountain Creek at Pueblo----------	177	1050	5.85	----	320	690	---
07126300 Purgatoire River near Thatcher---	33	2760	---	----	1400	2460	---
07126485 Pugatoire River at Rock Crossing near Timpas---	75	2390	---	----	1120	2002	1130
08251500 Rio Grande near Lobatos---------	119	394	---	.15	85	157	25

Table 3.--10 Year average (October 1, 1974 to September 30, 1984) values for selected constituents

(CFS, cubic foot per second; US/CM, micromhos per centimeter; MG/L, milligrams per liter)

STATION NUMBER NAME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHOROUS, TOTAL (MG/L AS P)	HARDNESS (MG/L AS CACO3)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SEDIMENT, SUSPENDED (MG/L)
06710000 South Platte River at Littleton----	300	459	1.53	0.05	140	243	33
06730500 Boulder Creek at Mouth near Longmont---	100	739	---	.00	260	455	---
06741480 Big Thompson River above Loveland--	166	608	---	.01	280	415	---
06741510 Big Thompson River at Loveland-----	143	809	---	.01	350	559	---
06752258 Cache la Poudre River at Shields Street at Ft Collins-	310	259	---	----	120	165	---
06752260 Cache la Poudre River at Ft Collins---	229	380	---	.08	170	240	---
06752270 Cache la Poudre River below Ft Collins	323	511	1.50	.29	210	334	---
06752280 Cache la Poudre River above Boxelder Creek near Timnath--	286	1190	---	----	570	998	---
06764000 South Platte River at Julesburg----	716	1910	3.17	.24	710	1420	302
07083000 Halfmoon Creek near Malta------	30	81	.62	.02	38	47	8
07097000 Arkansas River at Portland-----	659	459	.94	.17	180	283	190
07103700 Fountain Creek near Colorado Springs	16	329	1.83	.05	120	250	---
07104000 Monument Creek at Pikeview--------	28	323	2.33	.24	120	---	---
07105500 Monument Creek at Colorado Springs	75	627	2.47	.48	210	220	---
07105905 Fountain Creek above Little Fountain Creek below Fountain	99	1180	8.22	2.63	400	570	---
07106300 Fountain Creek near Pinon-----------	148	1140	8.73	4.05	340	623	---
07106500 Fountain Creek at Pueblo----------	99	1820	7.21	1.04	550	1130	---
07126300 Purgatoire River near Thatcher---	90	2920	---	----	1100	1860	1440
07126485 Pugatoire River at Rock Creekossing near Timpas---	116	2190	---	----	1160	1950	1400
08251500 Rio Grande near Lobatos---------	491	292	.76	.15	94	200	89

Ground Water

Water levels indicate the response of an aquifer to recharge and discharge. Recharge and discharge can be either natural or manmade. Water levels will rise when recharge is plentiful and discharge is small and will decline when recharge is small and discharge is large.

The aquifers within the Missouri River, Arkansas River, and Rio Grande basins can be grouped into two categories: unconsolidated aquifers and consolidated aquifers. The unconsolidated aquifers receive recharge from precipitation, return flow from applied irrigation water, and leakage from canals and streams. Discharge of ground water may be by seepage to streams, seeps, or springs, by loss to evapotranspiration, or by withdrawal by pumping wells. The consolidated aquifers receive recharge from precipitation and streams crossing outcrop areas. These aquifers primarily discharge water to springs and streams, although locally some discharge is by wells.

East of the Continental Divide, because of man's intensive use of ground water, the major fluctuations in water levels are declines caused by pumping wells. Ground water is being withdrawn from unconsolidated aquifers in the Northern High Plains and from consolidated aquifers in the Denver Basin. Water levels in the aquifers in the alluvial valleys in eastern Colorado are affected by both recharge from surface-water irrigation and discharge by ground-water pumpage.

DEFINITION OF TERMS

Terms related to streamflow, water quality, and other hydrologic data, as used in this report, are defined below. See also the table for converting inch-pound units to International System of units (SI) on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Algae are mostly aquatic single-celled, colonial or multi-celled plants, containing chlorophyll and lacking roots, stems, and leaves.

Algal-growth potential (AGP) refers to the results of an algal assay test which determines the nutrients that are limiting to growth, as well as to quantify the biological response to changes in concentrations of algal growth-limiting nutrients. These measurements are made by inoculating a water sample with an algal test organism and evaluating its growth response to various additions of nutrients overtime. The water samples are spiked with .005 mg/L phosphorus and .075 mg/L nitrogen, and the algal growth potential results are reported in milligrams per liter.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Bacteria are microscopic unicellular organisms, typically spherical, rod like, of spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as all the organisms which produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C ± 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestines or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C ± 0.2C° on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in the intestines of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C ± 1.0°C on M-enterrococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Bed material is the unconsolidated material of which the bottom of a streambed, lake, pond, reservoir, or estuary is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter (mg/L), necesssary for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area of volume of habitat.

Ash mass is the mass of amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3), and those for periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and the ash mass, and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Cfs-day is the volume of water represented by flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons or 2,447 cubic meters. It represents a runoff of approximately 0.0372 inch from 1 square mile, or 0.3468 millimeter from 1 square kilometer.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water, and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll *a* and *b* are the two most common pigments in plants.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Cubic foot per second (cfs, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second, or 448.8 gallons per minute, or 0.02832 cubic meters per second.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment), that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Dissolved refers to that material in a representative water sample which passes through a 0.45 um membrane filter. This may include some very small (colloidal) suspended particles as well as the amount of substance present in true chemical solution. It is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Dissolved oxygen (DO) is the dissolved-oxygen content of water in equilibrium with air and is a function of atmospheric pressure and temperature and dissolved-solids concentration of the water. The capacity of water for dissolved-oxygen decreases as dissolved solids or temperature increase or as atmospheric pressure decreases. Dissolved-solids concentration has the least effect on dissolved-oxygen concentration. Photosynthesis and respiration may cause diel variations in dissolved-oxygen concentration in water from some streams.

Drainage area of a stream at a specific location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained. When used in connection with a discharge record, the term is applied only to those gaging stations where a continuous record of discharge is computed.

Hardness of water is the physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium anbd magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

Micrograms per liter (UG/L) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represent the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L, and is based on the mass of sediment per liter of water-sediment mixture.

National Geodetic Vertical Datum of 1929 (NGVD) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

Partial-record station is a particular site where limited streamflow or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined either by sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulaltion tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Table 4 -- Factors for conversion of chemical constituents in milligrams or micrograms per liter to milliequivalents per liter

Ion	Multiply by	Ion	Multiply by
Aluminum (Al^{+3})*	0.11119	Iodide (I^{-1})	0.00788
Ammonia as N	.07139	Iron (Fe^{+3})*	.05372
Barium (Ba^{+2})	.01456	Lead (Pb^{+2})*	.00965
Bicarbonate (HCO_3^{-1})	.01639	Lithium (Li^{+1})*	.14411
Bromide (Br^{-1})	.01251	Magnesium (Mg^{+2})*	.08226
Calcium (Ca^{+2})	.04990	Manganese (Mn^{+2})*	.03640
Carbonate (CO_3^{-2})	.03333	Nickel (Ni^{+2})*	.03406
Chloride (Cl^{-1})	.02821	Nitrate as N	.07139
Chronium (Cr^{+6})*	.11539	Nitrite as N	.07139
Cobalt (Co^{+2})*	.03394	Phosphate,ortho as P	.09686
Copper (Cu^{+2})*	.03148	Potassium (K^{+1})	.02557
Cyanide (CN^{-1})	.03844	Sodium (Na^{+1})	.04350
Fluoride (F^{-1})	.05264	Strontium (Sr^{+2}*	.02283
Hydrogen (H^{+1})	.99209	Sulfate (SO_4^{-2})	.02082
Hydroxide (OH^{-1})	.05880	Zinc (ZN^{+2})*	.03060

*Constituents reported in micrograms per liter; multiply by factor and divide results by 1,000.

Table 5.--Factors for conversion of sediment concentration in milligrams per liter to parts per million*

(All values calculated to three significant figures)

Range of concentration in 1000 mg/L	Divide by	Range of concentration in 1000 mg/L	Divide by	Range of concentration in 1000 mg/L	Divide by	Range of concentration in 1000 mg/L	Divide by
0 - 8	1.00	201-217	1.13	411-424	1.26	619-634	1.39
8.05- 24	1.01	218-232	1.14	427-440	1.27	639-650	1.40
24.2 - 40	1.02	234-248	1.15	443-457	1.28	652-666	1.41
40.5 - 56	1.03	250-264	1.16	460-473	1.29	668-682	1.42
56.5 - 72	1.04	266-280	1.17	476-489	1.30	684-698	1.43
72.5 - 88	1.05	282-297	1.18	492-506	1.31	700-715	1.44
88.5 -104	1.06	299-313	1.19	508-522	1.32	717-730	1.45
105 -120	1.07	315-329	1.20	524-538	1.33	732-747	1.46
121 -136	1.08	313-345	1.21	540-554	1.34	749-762	1.47
137 -152	1.09	347-361	1.22	556-570	1.35	765-780	1.48
153 -169	1.10	363-378	1.23	572-585	1.36	782-796	1.49
170 -185	1.11	380-393	1.24	587-602	1.37	798-810	1.50
186 -200	1.12	395-409	1.25	604-617	1.38		

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*Based on water density of 1.000 g/mL and a specific gravity of sediment of 2.65.

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay.............	0.00024 - 0.004	Sedimentation
Silt.............	.004 - .062	Sedimentation
Sand.............	.062 - 2.0	Sedimentation or sieve
Gravel...........	2.0 - 64.0	Sieve

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis.

Periphyton is the assemblage of microorganisms attached to, and growing upon, solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton is a useful indicator of water quality.

Pesticide network is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in streams whose waters are used for irrigation or in streams in areas where potential contamination could result from the application of the commonly used insecticides and herbicides.

Pesticides are chemical compounds used to control undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants respectively, are the two categories reported.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per mL of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algal mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per mL of sample.

Picocurie (PC, pCi) is one trillionth (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 disintegrations per minute (dpm).

Polychlorinated biphenyls (PCB's) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Radiochemical network is a network of regularly sampled water-quality stations where samples are collected monthly or twice a year (at high and low flow) to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Radioisotopes are isotopic forms of an element that exhibit radioactivity. Isotopes are varieties of a chemical element that differ in atomic weight, but are very nearly alike in chemical properties. The difference arises because the atoms of the isotopic forms of an element differ in the number of neutrons in the nucleus. For example: Ordinary chlorine is a mixture of isotopes having atomic weights 35 and 37, with the natural mixture having atomic weight about 35.453. Many of the elements similarly exist as mixtures of isotopes, and a great many new isotopes have been produced in the operation of nuclear devices such as the cyclotron (Rose and Rose, 1966). There are 275 isotopes of the 81 stable elements in addition to over 800 radioactive isotopes.

Radioisotopes that are determined in this program are natural uranium in ug/L (micrograms per liter), radium as radium-226 in PC/L (pCi/L, picocuries per liter), gross beta radiation as equivalent strontium/yttrium-90 or cesium-137 in PC/L, and gross alpha radiation as micrograms of uranium equivalent per liter (ug/L). Gross alpha and beta radioactivity associated with the fine-grained (silt and clay-sized) sediments in the samples are also determined.

Recoverable from bottom material the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of only readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft (0.09 m) above the bed) expressed as milligrams of dry sediments per liter of water-sediment mixture (mg/L).

Suspended-sediment discharge (tons/day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight or volume, that passes a section in a given time. It is computed by multiplying discharge in cfs times concentration in mg/L times 0.0027.

Suspended-sediment load is that quantity of suspended sediment passing a section in a specified period.

Total sediment discharge or total sediment load is the sum of the suspended-sediment discharge and the bedload discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Sodium adsorption ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions with soil and is an index of sodium or alkali hazard to the soil. This ratio should be known especially for water used for irrigating farmland.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks and is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in micromhos per centimeter at 25°C. Specific conductance is related to the number and specific chemical types of ions in solution and can be used for approximating the dissolved-solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream or from well to well, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and volume of water per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the work "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Suspended, recoverable the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 um membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 um membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Thermograph is a thermometer that continuously and automatically records, on a chart, the water temperature of a stream. "Temperature recorder" is the term used to indicate the location of the thermograph.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the water year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration in milligrams per liter by 0.00136.

Tons per day is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour period.

Total the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determines all of the constituent in the sample.)

Total in bottom material the total amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total in bottom material."

Total, recoverable the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Water year in the U.S. Geological Survey is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1981, is called the "1981 water year."

Weighted average is used in this report to indicate the discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WRD is an abbreviation for "Water-Resources Data" in the summary REVISIONS paragraph to refer to State annual basic-data reports published prior to 1976.

WDR is used as an abbreviation for "Water-Data Report" in the summary REVISIONS paragraph to refer to State annual basic-data reports published after 1976.

WSP is used as an abbreviation for "Water-Supply Paper" in reference to previously published reports.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column, and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

DOWNSTREAM ORDER AND STATION NUMBER

Stations are listed in a downstream direction along the main stream, and stations on tributaries are listed between stations on the main stream in the order in which those tributaries enter the main stream. Stations on tributaries entering above all mainstream stations are listed before the first mainstream station. Stations on tributaries to tributaries are listed in a similar manner. In the list of gaging stations in the front of this report the rank of tributaries is indicated by indention, each indention representing one rank.

As an added means of identification, each gaging station and each partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and continuous-record gaging stations; therefore, the station number for a partial-record station indicates downstream order position in a list made up of both types of stations. Water-quality stations located at or near gaging stations or partial-record stations have the same number as the gaging or partial-record station.

Gaps are left in the sequential allocation of numbers to allow for new stations that may be established; hence the numbers are not consecutive. The complete 8-digit number for each station, such as 07083000, which appears just to the left of the station name, includes the 2-digit part number "07" plus the 6-digit downstream order number "083000." In this report the records are listed in downstream order by parts. The part number refers to an area whose boundaries coincide with certain natural drainage lines. Records in this report are for Part 6 (Missouri River basin), Part 7 (Lower Mississippi River basin), and Part 8 (Western Gulf of Mexico basins). Records for Part 9 (Colorado River Basin) are in Volumes 2 and 3. All records for a drainage basin encompassing more than one State can be arranged in downstream order by assembling pages from the various State reports by station number to include all records in the basin.

SPECIAL NETWORKS AND PROGRAMS

Some of the stations for which data are published in this report are included in special networks and programs. These stations are identified by their title, set in parentheses, under the station name.

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

National stream-quality accounting network (NASQAN) is a data collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated in the network design. Areal configuration of the network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are: (1) To depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis, and (2) to detect and assess long-term changes in streamflow and stream quality.

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and Computation of Data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at 5-, 15-, 30- or 60-minute intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the U.S. Geological Survey on the basis of experience in stream gaging since 1888. These methods are described in standard textbooks, in Water-Supply Paper 888, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6. Surface areas of lakes or reservoirs are determined from instrument surveys using standard methods. The configuration of the reservoir bottom is determined by sounding at many points.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharge are computed from the daily figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by hydrologists and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and winter discharge measurements, consideration being given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods the daily discharges are estimated on the basis of recorded range in stage, adjoining good record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated on the basis of operator's log, adjoining good record, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams or canals a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Records are published for the water year, which begins on October 1 and ends on September 30. A calendar for the current water year is shown on the inside of the front cover to facilitate finding the day of the week for any date.

The description of the gaging station gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge, and extremes of discharge or contents. The location of the gaging station and the drainage area are obtained from the most accurate maps available. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD."

Previously published streamflow records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1933 stands for the water year October 1, 1932, to September 30, 1933. If no daily, monthly or annual figures of discharge are affected by the revisions, the fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given.

The type of gage currently in use, the datum of the present gage above mean sea level, referred to National Geodetic Vertical Datum; and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." In references to datum of gage, the phrase "mean sea level" denotes "Sea Level Datum of 1929" as used by the Topographic Division of the Geological Survey unless otherwise qualified. National Geodetic Vertical Datum is explained in "DEFINITION OF TERMS."

Information pertaining to the accuracy of the discharge records, to conditions which affect the natural flow of the gaging station, availability of water-quality records, and reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir, is given under "REMARKS."

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE;" it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance.

The maximum discharge (or contents) and the maximum gage height, the minimum discharge if there is little or no regulation (or minimum contents), and the minimum gage height, if it is significant, are given under "EXTREMES." The minimum daily discharge is given if there is extensive regulation (also the minimum discharge and gage height if they are abnormally low). Under "EXTREMES" are given first, the extremes for the period of record, second, information available outside the period of record, and last, those for the current year. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge (or contents), it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations peak discharges are listed with EXTREMES FOR THE CURRENT YEAR; if they are, all independent peaks, including the maximum for the year, above the selected base with the time of occurrence and corresponding gage heights are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second (ft^3/s) during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in acre-feet (line headed "AC-FT"). In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years.

Footnotes to the table of daily discharge are introduced by the word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-discharge relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs a table showing daily contents or stage is given. A skeleton table of capacity at given stages is published for all reservoirs for which records are published on a daily basis, but is not published for reservoirs for which only monthly data are given.

Data collected at partial-record stations and at miscellaneous sites follow the information for continuous record sites. Data for partial-record discharge stations are presented in three tables. The first is a table of discharge measurements at low-flow partial-record stations, the second is a table of annual maximum stage and discharge at crest-stage stations, and the third is a table of discharge measurements at miscellaneous sites.

Accuracy of field data and computed results

The accuracy of streamflow data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of observations of stage, measurements of discharge, and interpretations of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent; "good" means within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second (ft^3/s) for discharges of less than 1 ft^3/s; to tenths between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to 3 significant figures above 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. However, because all the effects cannot be measured or evaluated, satisfactory adjustments generally cannot be made. For some stations, available figures of diversions or change in contents of reservoirs are included as supplemental data. Even at those stations where adjustments can be made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other data available

Information of a more detailed nature than that published for most of the gaging stations, such as observations of water temperatures, discharge measurements, gage-height records, and rating tables is on file in the district office. Also most gaging-station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the district office.

Records of Discharge Collected by Agencies other than the Geological Survey

Records of discharge not published by the Geological Survey were collected at many sites in Colorado during the water year by the folowing agencies: City of Colorado Springs; Colorado Division of Water Resources; Forest Service, U.S. Department of Agriculture; City and County of Denver, Board of Water Commissioners; National Weather Service, Department of Commerce; and the Bureau of Reclamation.

Access to WATSTORE DATA

The National WAter Data STOrage and REtrieval System (WATSTORE) was established for handling water data collected through the activities of the U.S. Geological Survey and to provide for more effective and efficient means of releasing the data to the public. The system is operated and maintained on the central computer facilities of the Survey at its National Center in Reston, Virginia.

WATSTORE can provide a variety of useful products ranging from simple data tables to complex statistical analyses. A minimal fee, plus the actual computer cost incurred in producing a desired product, is charged to the requester. Information about the availability of specific types of data, the acquisition of data or products, and user charges can be obtained locally from each of the Water Resources Division's district offices (see address given on the back of the title page).

General inquiries about WATSTORE may be directed to:

Chief Hydrologist
U.S. Geological Survey
437 National Center
Reston, VA 22092

EXPLANATION OF WATER-QUALITY RECORDS

Collection and Examination of Data

Water samples for analyses usually are collected at or near streamflow-gaging stations. The quality-of-water records are given immediately following the discharge records at these stations.

The descriptive heading for water-quality records gives the period of record for all water-quality data, the period of daily record for parameters that are measured on a daily basis (such as, specific conductance, pH, dissolved oxygen, water temperature, sediment discharge), extremes for the period of daily record, extremes for current year, and general remarks.

For ground-water records, no descriptive statements are given; however, the well number, depth of well, date of sampling, or other pertinent data are given in the table containing the chemical analyses of the ground water.

Water Analysis

Most methods for collecting and analyzing water samples are described in "U.S. Geological Survey Techniques of Water-Resources Investigations," which are listed on page 39.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling, as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field determination of carbonate and bicarbonate in the laboratory.

Prior to the 1968 water year, data for chemical constituents and concentrations of suspended sediment were reported in parts per million (ppm) and water temperatures were reported in degrees Fahrenheit (°F). In October 1967, the Geological Survey began reporting data for chemical constituents and concentrations of suspended sediment in milligrams per liter (mg/L) and water temperatures in degrees Celsius (°C). In waters with a density of 1.000 grams per milliliter (g/mL), parts per million and milligrams per liter can be considered equal. In waters with a density greater than 1.000 g/mL, values in parts per million should be multiplied by the density to convert to milligrams per liter. Temperature reported in degrees Celsius may be converted to degrees Fahrenheit by using table 3.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the district office.

REVISIONS--If errors in published water-quality records are discovered after publication, appropriate updates are made to the Water-Quality File in the U.S. Geological Survey's computerized data system, WATSTORE, and subsequently by monthly transfer of update transactions to the U.S. Environmental Protection Agency's STORET system. Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of U.S. Geological Survey water-quality data are encouraged to obtain all required data from the appropriate computer file to ensure the most recent updates.

Water Temperatures

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at the time of discharge measurements for surface-water stations. For stations where water temperatures are taken manually the water temperatures are taken about the same time each day. Large streams have a small diel temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges. At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published.

Table 6.--Degrees Celsius (°C) to degrees Fahrenheit (°F)*
(Temperature reported to nearest 0.5°C)

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
0.0	32	10.0	50	20.0	68	30.0	86	40.0	104
.5	33	10.5	51	20.5	69	30.5	87	40.5	105
1.0	34	11.0	52	21.0	70	31.0	88	41.0	106
1.5	35	11.5	53	21.5	71	31.5	89	41.5	107
2.0	36	12.0	54	22.0	72	32.0	90	42.0	108
2.5	36	12.5	54	22.5	72	32.5	90	42.5	108
3.0	37	13.0	55	23.0	73	33.0	91	43.0	109
3.5	38	13.5	56	23.5	74	33.5	92	43.5	110
4.0	39	14.0	57	24.0	75	34.0	93	44.0	111
4.5	40	14.5	58	24.5	76	34.5	94	44.5	112
5.0	41	15.0	59	25.0	77	35.0	95	45.0	113
5.5	42	15.5	60	25.5	78	35.5	96	45.5	114
6.0	43	16.0	61	26.0	79	36.0	97	46.0	115
6.5	44	16.5	62	26.5	80	36.5	98	46.5	116
7.0	45	17.0	63	27.0	81	37.0	99	47.0	117
7.5	45	17.5	63	27.5	81	37.5	99	47.5	117
8.0	46	18.0	64	28.0	82	38.0	100	48.0	118
8.5	47	18.5	65	28.5	83	38.5	101	48.5	119
9.0	48	19.0	66	29.0	84	39.0	102	49.0	120
9.5	49	19.5	67	29.5	85	39.5	103	49.5	121

*°C equals 5/9(°F-32°) or °F equals 9/5(°C)+32°.

In October 1968, the Geological Survey began reporting many of the chemical constituents as well as the minor elements in micrograms per liter instead of milligrams per liter. See "Definition of Terms," and table 5 for converting English units to SI units.

The biological information includes qualitative and quantitative analyses of plankton, periphyton, Chlorophyll a and b, biomass and bottom organisms. Microbiological information includes quantitative identification of selected bacteriological indicator organisms.

Solutes

Most methods for collecting and analyzing water samples to determine the kinds and concentrations of solutes are described by Brown, Skougstad, and Fishman (1970). Analysis of pesticides and organic substances in water are described by Goerlitz and Lamar (1967), Lamar, Goerlitz, and Law (1965), and Goerlitz and Brown (1972). The collection and analysis of aquatic, biological, and microbiological samples are described by Slack and others (1973).

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided day method. For periods when no samples were collected, daily loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge. A blank in the daily mean concentration column of the suspended-sediment discharge table indicates the value in the sediment discharge column was estimated. A zero value in the sediment-discharge column when there are nonzero values in the mean discharge and mean concentration columns indicates the load is less than 0.005 ton per day.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow in predicting long-term sediment-discharge characteristics of the streams.

In addition to the records of the quantities of suspended sediment, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included.

WATER-SUPPLY PAPERS

The annual series of Water-Supply Papers that give information on quality of surface waters in Colorado are shown in the following table:

Table 7.--Water-Supply Paper numbers and parts, water years 1941-71

Year	Part 6	Part 7	Part 8	Part 9	Irrigation (1951-65)[1]
1941	942	942	942	942	----
1942	950	950	950	950	----
1943	970	970	970	970	----
1944	1022	1022	1022	1022	----
1945	1030	1030	1030	1030	----
1946	1050	1050	1050	1050	----
1947	1102	1102	1102	1102	----
1948	1132	1133	1133	1133	----
1949	1162	1163	1163	1163	----
1950	1187	1188	1188	1189	----
1951	1198	1199	1199	1200	1264
1952	1251	1252	1252	1253	1362
1953	1291	1292	1292	1293	1380
1954	1351	1352	1352	1353	1430
1955	1401	1402	1402	1403	1465
1956	1451	1452	1452	1453	1485
1957	1521	1522	1522	1523	1524
1958	1572	1573	1573	1574	1575
1959	1643	1644	1644	1645	1699
1960	1743	1744	1744	1745	1746
1961	1883	1884	1884	1885	1886
1962	1943	1944	1944	1945	1946
1963	1949	1950	1950	1951	1952
1964	1956	1957	1957	1958	1960
1965	1963	1964	1964	1965	1967
1966	1993	1994	1994	1995	----
1967	2013	2014	2014	2015	----
1968	2095	2096	2097	2098	----
1969	2145	2146	2147	2148	----
1970	2155	2156	2157	2158	----
1971	2165	[2]2166	[2]2167	[2]2168	----

[1] Annual series, "Quality of Surface Waters for Irrigation, Western States."

[2] In preparation.

Information about reports and other data on quality of water in Colorado may be obtained from the district office at the address given on the back of the title page of this report.

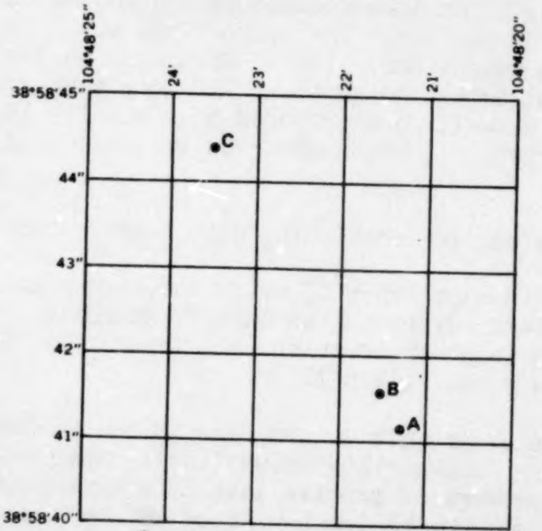
EXPLANATION OF GROUND-WATER-LEVEL RECORDS

Collection of Data

Only ground-water level data from a basic national network of observation wells are published herein. These water-level measurements are intended to provide a record of water-level changes in important aquifers.

The locations of wells are referenced by two systems. One system is based on latitude and longitude, and the second is based on the U.S. Bureau of Land Management system of land subdivision. The latitude and longitude grid system facilitates machine processing of data and plotting of data points.

The latitude and longitude grid system is used to provide the geographic location of each well. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude; N designates north; the next seven digits denote degrees, minutes, and seconds of longitude; and the last two digits are sequential numbers for wells within a 1-second grid, as shown below in figure 6.



Coordinates for site A 385841N104482101
B 385841N104482102
C 385844N104482300

Figure 5.--System for numbering wells and miscellaneous sites (latitude and longitude).

The local well number locates a well within a 10-acre tract using the U.S. Bureau of Land Management system of land subdivision. The components of the local well number proceed from the largest to the smallest land subdivisions. This is in contrast to the legal description, which proceeds from the smallest to the largest land subdivision. The largest subdivision is the survey. Colorado is governed by three surveys: The Sixth Principal Meridian Survey (S), the New Mexico Survey (N), and the Ute Survey (U). Costilla County was not included in any of the above official surveys. This report follows the convention of the Costilla County Assessor in which the northern part of the county is governed by the Sixth Principal Meridian Survey and the southern part of the county is governed by a local system called the Costilla Survey (C). The first letter of the well location designates the survey.

A survey is subdivided into four quadrants formed by the intersection of the baseline and the principal meridian. The second letter of the well location designates the quadrant: A indicates the northeast quadrant, B the northwest, C the southwest, and D the southeast. A quadrant is subdivided in the north-south direction every 6 mi by townships and is subdivided in the east-west direction every 6 mi by ranges. The first number of the well location designates the township and the second number designates the range.

The 36-mi^2 area described by the township and range designation is subdivided into 1-mi^2 areas called sections. The sections are numbered sequentially. The third number of the well location designates the section. The section, which contains 640 acres, is subdivided into quarter sections. The 160-acre area is designated by the first letter following the section: A indicates the northeast quarter, B the northwest, C the southwest, and D the southeast. The quarter section is subdivided into quarter-quarter sections. The 40-acre area is designated in the same manner by the second letter following the section. The quarter-quarter section is subdivided into quarter-quarter-quarter sections. The 10-acre area is designated in the same manner by the third letter following the section. If more than one well is located within the 10-acre tract, the wells are numbered sequentially in the order in which they were originally inventoried. If this number is necessary, it will follow the three-letter designation.

The local number is provided for continuity with older reports.

Measurements are made in many types of wells under varying conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well insure that measurements at each well are of consistent accuracy and reliability.

Water-level measurements in this report are given in feet with reference to either mean sea level (msl) or land-surface datum (lsd). Mean sea level is the datum plane on which the national network of precise levels is based; land-surface datum is a datum plane that is approximately at land surface at each well. If known, the altitude of the land-surface datum above mean sea level is given in the well description. The height of the meaasuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (eom).

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error of determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water, the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given only to a tenth of a foot or a larger unit.

Publications

Publication of ground-water level data for the United States in water-supply papers was begun by the Geological Survey in 1935. From 1935 through 1939, a single water-supply paper covering the entire nation was issued each year (Water-Supply Papers 777, 817, 840, 845, and 886). From 1940 through 1974, separate water-supply papers were issued for six sections of the United States. Water-level data for Colorado are included in the water-supply papers listed below, each report containing one or more calendar years (January through December) of data. Data in this report are for the 12-month water year ending September 30.

Calendar year	WSP no.	Calendar year	WSP no.	Calendar year	WSP no.	Calendar year	WSP no.
1940	910	1945	1027	1950	1169	1955	1408
1941	940	1946	1075	1951	1195	1956-60	1760
1942	948	1947	1100	1952	1225	1961-65	1845
1943	990	1948	1130	1953	1269	1966-70	1980
1944	1020	1949	1160	1954	1325		

Information about reports and other data on ground water in Colorado may be obtained from the district office at the address given on the back of the title page of this report.

SELECTED REFERENCES

The following publications are available for background information on the methods for collecting, analyzing, and evaluating the chemical and physical properties of surface waters:

American Public Health Association, and others, 1980, Standard methods for the examination of water and waste water, 13th ed: American Public Health Assoc., New York, 1134 p.

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Fishman, M. J., and Bradford, W. L., 1982, A supplement to methods for the determination of inorganic substances in water and fluvial sediments: U.S. Geological Survey Techniques of Water-Resources Investigations, Book 5, Laboratory Analysis, Chapter A1, open-file report 82-272, 136 p.

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McGuinness, C. L., 1963, The role of ground water in the national water situation: U.S. Geological Survey Water-Supply Paper 1800, 1121 p.

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_____1923, Outline of ground-water hydrology, with definitions: U.S. Geological Survey Water-Supply Paper 494, 71 p.

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Report 13, 1961, The single-stage sampler for suspended sediment: Washington, D. C., U.S. Government Printing Office, 105 p.

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PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

The U.S. Geological Survey publishes a series of manuals describing procedures for planning and conducting specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) pertains to surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises.

The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 604 South Pickett St., Alexandria, VA 22304 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

1-D1. *Water temperature--influential factors, field measurement, and data presentation*, by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.

1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.

2-D1. *Application of surface geophysics to ground-water investigations*, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.

2-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.

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3-A10. *Discharge ratings at gaging stations*, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 pages.

3-A11. *Measurement of discharge by moving-boat method*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.

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3-A14. *Use of flumes in measuring discharge*, by F. A. Kilpatrick and V. R. Schneider: USGS--TWRI Book 3, Chapter A14. 1983. 46 pages.

3-A15. *Computation of water-surface profiles in open channels*. by Jacob Davidian: USGS--TWRI Book 3, Chapter A15. 1984. 48 pages.

3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.

3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.

3-B3. *Type curves for selected problems of flow to wells in confined aquifers*. by J. E. Reed: USGS-TWRI Book 3, Chapter B3. 1980. 106 pages.

3-C1. *Fluvial sediment concepts* by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.

3-C2. *Field methods for measurement of fluvial sediment*, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.

3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.

4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.

4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.

4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.

4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.

4-B3. *Regional analyses of streamflow characteristics*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.

4-D1. *Computation of rate and volume of stream depletion by wells* by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.

5-A1. *Methods for determination of inorganic substances in water and fluvial sediments* by M. W. Skougstad and others, editors: USGS--TWRI Book 5, Chapter A1. 1979. 626 pages.

5-A2. *Determination of minor elements in water by emission spectroscopy*, by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.

5-A3. *Methods for analysis of organic substances in water*, by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages.

5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, edited by P. E. Greeson, T. A. Ehlke, G. A. Irwin, B. W. Lium, and K. V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 pages.

5-A5. *Methods for determination of radioactive substances in water and fluvial sediments*, by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.

5-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sedments*, by L. C. Friedman and D. E. Erdmann: USGS--TWRI Book 5, Chapter A6. 1982. 181 pages.

5-C1. *Laboratory theory and methods for sediment analysis*, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.

7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.

7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water*, by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.

7-C3. *A model for simulation of flow in singular and interconnected channels* by R. W. Schaffrannek, R. A. Baltzer, and D. E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 pages.

8-A1. *Methods of measuring water levels in deep wells* by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages

8-A2. *Installation and service manual for U.S. Geological Survey manometers* by J. D. Craig: USGS--TWRI Book 8, Chapter A2. 1983. 57 pages.

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PLATTE RIVER BASIN

06614800 MICHIGAN RIVER NEAR CAMERON PASS, CO

LOCATION.--Lat 40°29'46", long 105°51'52", in S½ sec.12, T.6 N., R.76 W. (unsurveyed), Jackson County, Hydrologic Unit 10180001, on right bank 500 ft upstream from Michigan ditch, 2.2 mi southeast of Cameron Pass, 8 mi east of Gould, and 27 mi southeast of Walden.

DRAINAGE AREA.--1.53 mi².

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 10,390 ft, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 18 to Dec. 10, Feb. 5 to Mar. 26. Records good except for estimated daily discharges, and winter period, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--12 years, 3.08 ft³/s; 2,230 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 64 ft³/s, June 30, 1984, gage height, 3.28 ft; maximum gage height, 3.53 ft, June 18, 1974; minimum daily discharge, 0.12 ft³/s, Jan. 12, 13, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 34 ft³/s at 1900 June 8, gage height, 3.18 ft; minimum daily, 0.29 ft³/s, Apr. 8-13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	1.2	.90	.53	.41	.38	.33	.95	9.0	8.0	4.0	1.6
2	2.0	1.2	.80	.53	.41	.38	.33	1.3	8.8	8.9	4.7	1.8
3	2.2	1.2	.80	.53	.41	.38	.33	1.6	9.2	9.8	4.0	1.8
4	2.2	1.2	.80	.53	.41	.38	.33	1.9	10	10	3.6	1.8
5	2.4	1.2	.80	.53	.40	.38	.33	1.9	12	10	3.3	1.8
6	2.5	1.1	.80	.53	.40	.38	.33	1.7	14	10	3.0	1.6
7	2.2	1.2	.80	.53	.40	.38	.31	1.8	19	9.5	2.9	1.6
8	2.2	1.2	.70	.53	.40	.38	.29	2.4	26	9.5	2.6	1.6
9	2.2	1.2	.70	.53	.40	.35	.29	2.7	22	8.8	2.8	1.4
10	2.0	1.2	.70	.53	.40	.35	.29	3.1	20	8.8	2.4	1.4
11	2.0	1.2	.61	.53	.40	.35	.29	2.9	18	11	2.5	1.4
12	2.0	1.2	.61	.49	.40	.35	.29	2.4	17	11	3.6	1.6
13	2.0	1.2	.61	.49	.40	.35	.29	2.1	18	9.8	2.6	1.4
14	2.0	1.2	.61	.49	.40	.35	.31	2.0	18	8.5	2.5	1.3
15	1.8	1.2	.61	.49	.40	.35	.41	1.9	18	8.0	2.2	1.3
16	1.8	1.2	.61	.49	.38	.35	.56	2.0	22	7.3	2.0	1.2
17	1.8	1.1	.61	.49	.38	.35	.64	2.1	21	6.7	2.0	1.1
18	1.8	1.0	.61	.49	.38	.35	.67	2.1	18	7.8	2.0	1.1
19	1.6	1.0	.61	.49	.38	.35	.79	2.1	17	10	2.0	1.2
20	1.6	1.0	.61	.49	.38	.35	.71	2.1	17	10	1.8	1.1
21	1.6	1.0	.57	.49	.38	.35	.62	2.5	18	8.0	1.8	1.0
22	1.4	1.0	.57	.49	.38	.35	.56	2.5	16	6.9	1.8	1.1
23	1.4	1.0	.57	.45	.38	.35	.53	2.7	14	8.0	1.6	1.4
24	1.3	.90	.57	.45	.38	.35	.51	3.6	13	7.8	1.6	1.3
25	1.3	.90	.57	.45	.38	.35	.47	4.6	15	6.7	1.4	1.4
26	1.3	.90	.57	.45	.38	.37	.44	5.1	12	6.0	1.4	1.3
27	1.3	.90	.57	.45	.38	.37	.51	5.8	9.5	5.4	1.4	1.2
28	1.3	.90	.57	.45	.38	.37	.69	7.1	8.8	4.9	1.8	1.3
29	1.3	.90	.57	.45	---	.37	.72	8.0	8.5	5.4	1.8	1.2
30	1.3	.90	.57	.41	---	.37	.71	8.2	8.0	4.7	1.6	1.1
31	1.3	---	.57	.41	---	.34	---	8.2	---	4.0	1.4	---
TOTAL	55.3	32.50	20.17	15.19	10.98	11.18	13.88	99.35	456.8	251.2	74.1	41.4
MEAN	1.78	1.08	.65	.49	.39	.36	.46	3.20	15.2	8.10	2.39	1.38
MAX	2.5	1.2	.90	.53	.41	.38	.79	8.2	26	11	4.7	1.8
MIN	1.3	.90	.57	.41	.38	.34	.29	.95	8.0	4.0	1.4	1.0
AC-FT	110	64	40	30	22	22	28	197	906	498	147	82

CAL YR 1984 TOTAL 1537.57 MEAN 4.20 MAX 32 MIN .20 AC-FT 3050
WTR YR 1985 TOTAL 1082.05 MEAN 2.96 MAX 26 MIN .29 AC-FT 2150

NOTE.--NO GAGE-HEIGHT RECORD FEB. 5 TO MAR. 26.

06620000 NORTH PLATTE RIVER NEAR NORTHGATE, CO

LOCATION.--Lat 40°56'15", long 106°20'16", in NE¼SW¼SE¼ sec.11, T.11 N., R.80 W., Jackson County, Hydrologic Unit 10180001, on right bank 350 ft downstream from bridge on State Highway 125, 0.8 mi upstream from Camp Creek, 4.2 mi northwest of Northgate, and 4.4 mi south of Colorado-Wyoming State line.

DRAINAGE AREA.--1,431 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to November 1904 (published as "near Pinkhampton"), May 1915 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1916-21, 1929(M), 1930-32. WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,810.39 ft above National Geodetic Vertical Datum of 1929. See WSP 1730 for history of changes prior to Apr. 8, 1918. Apr. 8, 1918, to Aug. 21, 1961, water-stage recorder, at site 0.8 mi downstream at datum 3.36 ft, lower. Aug. 22, 1961, to Sept. 18, 1984, at site 650 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Oct. 22-25, 27-29, Nov. 26 to Apr. 9. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 130,000 acres of hay meadows above station. Transbasin diversions above station to Cache la Poudre River basin.

AVERAGE DISCHARGE.--70 years, 442 ft^3/s; 320,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,720 ft^3/s, June 11, 1923, gage height, 6.24 ft, site and datum then in use; maximum gage height recorded, 9.65 ft, Apr. 25, 1980, (ice jam); minimum daily discharge, 19 ft^3/s, July 17-19, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,530 ft^3/s May 7, gage height, 5.23 ft, maximum gage height, 5.66 ft, Apr. 9, ice jam; minimum daily discharge, 112 ft^3/s, Sept. 19-20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	314	347	190	170	130	160	440	1380	1250	549	538	122
2	304	332	175	160	140	160	480	1480	1160	552	487	125
3	303	324	155	160	140	160	540	1680	1090	508	463	149
4	321	312	140	170	140	155	660	1930	1070	473	434	181
5	337	286	140	175	140	155	800	2140	1080	466	396	179
6	337	304	150	180	145	155	930	2320	1080	473	363	161
7	373	341	160	190	145	160	980	2460	1180	473	331	152
8	369	331	175	185	150	160	1100	2390	1320	490	298	164
9	342	325	195	180	155	160	1280	2100	1630	509	286	171
10	329	233	220	175	150	165	1430	2160	2040	507	315	155
11	318	302	230	170	145	160	1450	2280	2230	496	307	144
12	304	339	210	165	150	155	1520	2310	1900	499	296	150
13	302	356	190	160	150	160	1520	2270	1540	542	327	156
14	301	365	165	160	155	170	1470	1920	1340	542	310	150
15	314	255	160	160	155	190	1540	1580	1290	494	270	143
16	305	250	155	165	155	185	1650	1320	1260	526	242	142
17	302	310	150	170	160	200	1720	1180	1340	515	221	126
18	326	300	150	170	155	220	1820	1130	1460	609	207	117
19	340	285	155	170	160	240	1900	1240	1400	897	214	112
20	355	286	155	165	165	260	1870	1310	1130	1060	220	112
21	375	300	155	165	160	280	1600	1160	990	1080	211	114
22	360	290	155	160	160	310	1360	1090	917	890	198	122
23	340	263	155	155	155	340	1340	1110	875	762	183	140
24	320	266	155	150	155	390	1270	1070	799	728	170	152
25	305	281	160	150	155	430	1170	1040	824	749	164	158
26	301	235	170	145	150	490	1110	1170	939	660	155	162
27	300	195	175	140	155	530	1030	1320	961	654	149	154
28	295	240	180	140	155	530	1180	1350	855	590	148	159
29	285	225	180	140	---	510	1310	1320	704	549	146	212
30	362	210	180	140	---	480	1400	1360	596	587	140	229
31	356	---	175	140	---	450	---	1330	---	574	132	---
TOTAL	10095	8688	5260	5025	4230	8270	37870	49900	36250	19003	8321	4513
MEAN	326	290	170	162	151	267	1262	1610	1208	613	268	150
MAX	375	365	230	190	165	530	1900	2460	2230	1080	538	229
MIN	285	195	140	140	130	155	440	1040	596	466	132	112
AC-FT	20020	17230	10430	9970	8390	16400	75120	98980	71900	37690	16500	8950

CAL YR 1984 TOTAL 314337 MEAN 859 MAX 6080 MIN 120 AC-FT 623500
WTR YR 1985 TOTAL 197425 MEAN 541 MAX 2460 MIN 112 AC-FT 391600

06620000 NORTH PLATTE RIVER NEAR NORTHGATE, CO--Continued

PERIOD OF RECORD.--Water years 1966 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
OCT 03...	1000	299	219	8.0	93	26	6.8	10	.5	.70
NOV 14...	1000	384	254	.0	100	29	7.9	13	.6	.50
DEC 19...	0930	153	244	.0	100	28	7.7	12	.5	1.9
JAN 29...	1030	139	249	.0	100	26	9.1	13	.6	1.5
MAR 12...	1130	146	275	.0	110	29	9.2	16	.7	2.2
APR 19...	0900	1880	207	8.0	84	22	7.1	10	.5	2.0
MAY 10...	1330	2200	177	11.5	73	20	5.7	7.3	.4	1.2
JUN 13...	1630	1500	224	9.5	98	28	6.9	10	.5	1.5
JUL 16...	1515	546	305	19.0	130	35	9.3	17	.7	.70
AUG 29...	1245	147	234	21.5	95	27	6.6	11	.5	1.2

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT 03...	86	19	2.6	.30	7.2	120	.17	100	.00	.040
NOV 14...	100	24	2.2	.10	9.9	150	.20	152	.00	.040
DEC 19...	100	20	.90	.50	16	150	.20	61	.00	.000
JAN 29...	100	22	2.3	.30	13	150	.20	55	.20	.000
MAR 12...	110	26	2.9	.80	12	160	.22	65	.10	.020
APR 19...	70	29	1.8	.40	7.8	120	.17	620	.30	.040
MAY 10...	65	18	2.1	.20	8.2	100	.14	604	.00	.040
JUN 13...	100	16	1.1	.30	10	130	.18	542	.00	.030
JUL 16...	130	18	3.3	.50	9.0	170	.23	252	.00	.130
AUG 29...	97	18	1.8	.10	6.9	130	.18	52	.00	.040

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MEDIBEN) (BANVEL D) TOTAL (UG/L)	PICLORAM (TORDON) (AMDON) TOTAL (UG/L)
JUN 13...	1630	1500	9.5	<.01	<.01	<.01	<.01	<.010	<.010
SEP 25...	1230	166	6.0	<.01	<.01	<.01	<.01	<.010	<.010

06695000 SOUTH PLATTE RIVER ABOVE ELEVENMILE CANYON RESERVOIR, NEAR HARTSEL, CO

LOCATION.--Lat 38°58'03", long 105°34'51", in NE¼ sec.32, T.12 S., R.73 W., Park County, Hydrologic Unit 10190001, on left bank 200 ft downstream from highway bridge, 2.5 mi upstream from water line of Elevenmile Canyon Reservoir, at elevation 8,561 ft, and 13 mi southeast of Hartsel.

DRAINAGE AREA.--880 mi².

PERIOD OF RECORD.--June 1933 to current year (no winter records prior to 1940). Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1630: 1958. WSP 1730: Drainage area.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 8,612.83 ft, Denver Board of Water Commissioners Datum. Prior to May 27, 1939, water-stage recorder near present site at different datum. May 27, 1939, to Nov. 4, 1961, at datum 0.46 ft, lower.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by Antero Reservoir, capacity, 22,300 acre-ft, prior to Sept. 15 1981, and by Spinney Mountain Reservoir, 3.6 mi upstream, capacity, 152,900 acre-ft, since Sept. 15 1981. Many small diversions above station for irrigation of about 24,000 acres. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--42 years, (water years 1940-81), 77.3 ft³/s; 56,000 acre-ft/yr, prior to completion of Spinney Mountain Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum instantaneous discharge, not determined, occurred Apr. 28, 1970, gage height, 7.60 ft, from floodmarks; maximum daily discharge, 3,970 ft³/s, Apr. 27, 1970; minimum daily, 0.20 ft³/s, Oct. 25, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 674 ft³/s at 1500 June 12, gage height, 3.24 ft, minimum daily, 25 ft³/s, Nov. 30, Dec. 14-15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	183	26	29	66	50	128	271	289	199	123	177
2	68	90	26	28	66	40	128	258	296	236	183	173
3	64	99	26	30	72	32	98	228	320	249	215	173
4	115	106	27	30	72	31	73	168	320	267	181	137
5	197	106	26	30	58	27	56	201	352	251	142	120
6	223	107	27	32	54	28	31	253	389	327	118	134
7	207	102	27	32	54	28	32	273	389	313	86	130
8	199	92	28	31	54	28	45	253	429	264	73	69
9	183	92	29	30	56	27	62	264	512	258	93	77
10	153	92	29	28	54	27	60	306	603	253	125	125
11	110	58	30	28	52	28	49	317	630	260	151	118
12	99	37	30	27	52	28	115	313	655	278	164	135
13	87	37	28	27	54	27	185	282	649	278	157	130
14	93	62	25	29	55	28	162	262	555	267	149	139
15	125	84	25	31	56	28	128	249	478	264	146	162
16	166	79	28	31	60	28	115	223	478	264	148	173
17	125	76	28	32	58	27	115	195	478	264	142	162
18	162	76	28	31	58	28	115	166	456	273	134	158
19	247	69	28	31	58	41	128	172	413	289	132	185
20	247	46	28	32	60	98	137	228	392	206	130	160
21	245	49	27	30	58	96	122	260	354	413	128	120
22	243	49	27	29	56	81	122	276	402	570	127	118
23	243	37	29	28	56	72	120	294	437	543	128	118
24	243	34	29	27	52	51	96	294	410	405	128	118
25	182	33	28	50	52	54	74	294	384	315	123	118
26	267	31	28	70	54	55	81	287	315	276	120	89
27	317	30	32	72	50	61	99	278	299	262	153	73
28	315	32	32	72	50	66	99	282	294	247	173	74
29	315	32	31	72	---	87	127	294	264	301	175	74
30	306	25	31	72	---	127	191	322	221	243	175	62
31	306	---	31	72	---	127	---	299	---	234	179	---
TOTAL	5920	2045	874	1193	1597	1556	3093	8062	12463	9069	4401	3801
MEAN	191	68.2	28.2	38.5	57.0	50.2	103	260	415	293	142	127
MAX	317	183	32	72	72	127	191	322	655	570	215	185
MIN	64	25	25	27	50	27	31	166	221	199	73	62
AC-FT	11740	4060	1730	2370	3170	3090	6130	15990	24720	17990	8730	7540

CAL YR 1984 TOTAL 58014 MEAN 159 MAX 588 MIN 18 AC-FT 115100
WTR YR 1985 TOTAL 54074 MEAN 148 MAX 655 MIN 25 AC-FT 107300

NOTE.--NO GAGE-HEIGHT RECORD DEC. 21 TO MAR. 4.

06696000 SOUTH PLATTE RIVER NEAR LAKE GEORGE, CO

LOCATION.--Lat 38°54'19", long 105°28'22", in SW¼ sec.20, T.13 S., R.72 W., Park County, Hydrologic Unit 10190001, on left bank 700 ft downstream from Elevenmile Canyon Reservoir and 8.2 mi southwest of town of Lake George.

DRAINAGE AREA.--963 mi².

PERIOD OF RECORD.--October 1929 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1730: Drainage area.

GAGE.--Water-stage recorder and Parshall flume. Elevation of gage is 8,458 ft, from topographic map. Prior to Oct. 26, 1940, at site 1 mi downstream at datum 8,423.95 ft, National Geodetic Vertical Datum, adjustment of 1912.

REMARKS.--Estimated daily discharges: Feb. 24, Apr. 17, 23. Records good. Natural flow of stream affected by transmountain diversions through East and WestHoosier ditches at Hoosier Pass prior to 1941, storage in Elevenmile Canyon Reservoir (see elsewhere in this report) and Antero Reservoir, capacity, 22,300 acre-ft, diversions for irrigation, and return flow from irrigated areas. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--56 years, 76.0 ft³/s; 55,060 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 3,000 ft³/s, Apr. 28, 1970, gage height, 8.34 ft, from floodmarks, by computation of outflow from Elevenmile Canyon Reservoir; no flow at times in January 1930, February 1931, and November 1935.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 610 ft³/s at 1500 June 14, gage height, 4.47 ft; minimum daily, 28 ft³/s, Dec. 17, 24-30, Jan. 18, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	288	40	29	64	64	120	144	307	273	280	145
2	70	259	39	29	65	62	123	167	304	260	255	153
3	70	227	36	29	65	67	131	185	309	255	246	153
4	85	206	36	30	59	54	88	190	318	254	238	156
5	107	182	35	30	59	50	72	190	325	252	219	149
6	125	168	34	29	57	48	67	212	341	254	201	140
7	145	160	32	29	58	45	64	227	350	273	181	138
8	157	148	32	30	59	42	64	238	361	273	161	125
9	170	143	32	30	56	41	66	244	372	270	142	113
10	174	130	30	30	57	42	72	257	415	265	133	108
11	170	123	30	30	56	42	77	277	457	259	131	111
12	161	112	30	30	57	45	83	275	504	259	131	148
13	153	101	30	30	56	45	99	297	559	262	130	161
14	155	96	30	30	57	45	115	295	579	262	131	156
15	159	91	30	30	57	43	125	288	544	267	131	155
16	171	90	30	29	56	42	129	280	519	273	129	153
17	168	89	28	29	57	42	130	273	491	270	128	152
18	167	89	29	28	57	41	130	265	483	270	128	147
19	171	87	29	30	58	41	135	249	477	273	125	149
20	185	84	29	28	60	67	133	241	457	292	123	148
21	197	78	30	29	60	105	131	250	425	295	123	148
22	207	74	30	30	61	102	129	265	394	346	123	140
23	218	72	30	30	65	92	131	280	391	417	121	105
24	230	69	28	29	65	77	129	292	391	453	120	84
25	230	66	28	30	64	70	120	299	381	339	119	82
26	230	64	28	33	65	68	115	305	387	398	117	84
27	244	56	28	40	65	68	114	307	337	366	117	78
28	260	55	28	52	65	74	113	307	321	342	124	72
29	272	51	28	61	---	87	117	304	307	339	130	83
30	280	45	28	60	---	107	125	309	292	330	136	80
31	290	---	29	62	---	117	---	307	---	304	143	---
TOTAL	5490	3503	956	1045	1680	1935	3247	8019	12098	9245	4716	3816
MEAN	177	117	30.8	33.7	60.0	62.4	108	259	403	298	152	127
MAX	290	288	40	62	65	117	135	309	579	453	280	161
MIN	69	45	28	28	56	41	64	144	292	252	117	72
AC-FT	10890	6950	1900	2070	3330	3840	6440	15910	24000	18340	9350	7570

CAL YR 1984 TOTAL 62074 MEAN 170 MAX 697 MIN 28 AC-FT 123100
WTR YR 1985 TOTAL 55750 MEAN 153 MAX 579 MIN 28 AC-FT 110600

06696980 TARRYALL CREEK AT UPPER STATION, NEAR COMO, CO

LOCATION.--Lat 39°20'23", long 105°54'42", in NE¼SW¼ sec.20, T.8 S., R.76 W., Park County, Hydrologic Unit 10190001, on left bank 150 ft upstream from culvert on county road 1.8 mi northwest of Como.

DRAINAGE AREA.--23.7 mi².

PERIOD OF RECORD.--June 1978 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 9,935 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to July 15, 1980, at site 250 ft downstream at different datum.

REMARKS.--Estimated daily discharges: Oct. 23 to Nov. 6, Nov. 12 to Mar. 21, Mar. 28 to Apr. 5. Records good except for estimated daily discharges, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--7 years, 21.2 ft³/s; 15,360 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, not determined, maximum daily, 170 ft³/s, June 12, 1980; minimum daily, 1.5 ft³/s, Apr. 5, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 146 ft³/s at 2030 June 8, gage height, 2.31 ft; minimum daily, 3.0 ft³/s, Dec. 27 to Jan. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	13	10	3.0	4.5	6.0	11	27	83	43	37	12
2	17	13	10	3.0	4.5	6.0	11	37	83	42	38	12
3	23	13	10	3.0	4.5	6.0	11	41	80	40	35	12
4	23	13	10	3.5	4.5	6.0	8.0	48	80	39	34	14
5	22	13	10	4.2	4.5	6.0	6.0	51	84	38	31	14
6	20	13	10	4.5	4.5	6.0	4.6	50	92	37	30	11
7	19	12	10	4.5	4.5	6.0	6.5	47	108	36	29	11
8	18	11	10	4.5	4.5	6.0	7.1	54	122	36	27	11
9	19	9.1	10	4.5	4.5	6.0	7.4	56	122	36	26	10
10	17	8.4	10	4.5	4.5	6.0	7.8	57	120	34	26	10
11	16	9.4	10	4.5	4.5	6.0	8.4	56	105	32	24	14
12	16	9.4	10	4.5	4.5	6.0	9.4	51	96	32	24	16
13	16	10	10	4.5	4.5	6.0	10	47	91	34	23	12
14	17	10	10	4.5	4.5	6.0	13	46	88	30	23	11
15	13	10	10	4.5	4.5	5.8	18	44	81	30	22	10
16	14	10	9.0	4.5	4.5	5.6	16	46	80	30	21	9.8
17	16	10	7.4	4.5	4.5	5.4	19	47	79	29	21	8.4
18	16	10	6.4	4.5	4.5	5.4	20	49	73	36	21	9.1
19	16	10	6.0	4.5	4.5	5.4	16	50	70	42	20	9.4
20	15	10	6.0	4.5	4.5	5.3	14	48	67	41	19	9.8
21	15	10	6.0	4.5	4.5	5.3	13	50	65	50	18	8.7
22	15	10	6.0	4.5	4.5	5.3	11	51	62	48	18	11
23	14	10	6.0	4.5	5.0	4.9	11	54	60	47	16	10
24	13	10	6.0	4.5	5.8	4.9	12	59	59	43	15	11
25	13	10	6.0	4.5	6.0	6.5	9.4	66	60	40	15	11
26	13	10	4.5	4.5	6.0	5.7	6.4	69	56	40	14	9.4
27	13	10	3.0	4.5	6.0	5.8	12	76	52	38	14	10
28	13	10	3.0	4.5	6.0	6.8	16	82	49	37	14	12
29	13	10	3.0	4.5	---	9.0	16	88	47	38	14	11
30	13	10	3.0	4.5	---	9.8	20	88	44	36	13	9.8
31	13	---	3.0	4.5	---	11	---	84	---	35	13	---
TOTAL	498	317.3	234.3	133.7	133.8	191.9	351.0	1719	2358	1169	695	330.4
MEAN	16.1	10.6	7.56	4.31	4.78	6.19	11.7	55.5	78.6	37.7	22.4	11.0
MAX	23	13	10	4.5	6.0	11	20	88	122	50	38	16
MIN	13	8.4	3.0	3.0	4.5	4.9	4.6	27	44	29	13	8.4
AC-FT	988	629	465	265	265	381	696	3410	4680	2320	1380	655

CAL YR 1984 TOTAL 11150.3 MEAN 30.5 MAX 135 MIN 3.0 AC-FT 22120
WTR YR 1985 TOTAL 8131.4 MEAN 22.3 MAX 122 MIN 3.0 AC-FT 16130

NOTE.--NO GAGE-HEIGHT RECORD NOV. 15 TO MAR. 21.

06697450 MICHIGAN CREEK ABOVE JEFFERSON, CO

LOCATION.--Lat 39°21'17", long 105°50'22", in NE¼SW¼ sec.13, T.8 S., R.76 W., Park County, Hydrologic Unit 10190001, on left bank 0.7 mi upstream from bridge on U.S. Highway 285 and 2.6 mi southwest of Jefferson.

DRAINAGE AREA.--23.3 mi^2.

PERIOD OF RECORD.--June 1978 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 9,503 ft from National Geodetic Vertical Datum of 1929, from topographic map. Prior to May 6, 1982, at site 0.4 mi upstream at different datum.

REMARKS.--Estimated discharges: Oct. 16 to May 20, Sept. 19-30. Records good except for estimated daily discharges, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--7 years, 14.8 ft^3/s; 10,720 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 163 ft^3/s June 27, 1983, gage height, 1.98 ft; maximum gage height, 2.11 ft, June 10, 1979, site and datum then in use; minimum daily discharge, 0.41 ft^3/s, Feb. 3-10, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 138 ft^3/s at 0230 June 8, gage height, 1.49 ft; minimum daily, 3.2 ft^3/s, Jan. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	15	6.6	3.3	4.2	5.0	7.0	5.6	56	45	47	12
2	11	15	6.6	3.3	4.2	5.0	7.0	5.6	56	46	45	13
3	13	16	6.6	3.2	4.2	5.0	7.0	5.6	60	48	37	14
4	23	16	6.6	3.4	4.2	5.0	7.0	5.6	57	46	32	18
5	18	16	6.6	3.6	4.2	5.0	7.0	6.6	67	43	30	17
6	14	16	6.6	4.2	4.2	5.0	7.0	7.4	82	45	28	15
7	11	16	6.6	4.2	4.2	5.0	7.0	9.0	105	48	24	12
8	10	16	6.6	4.2	4.2	5.0	7.0	10	124	46	23	14
9	9.3	16	6.6	4.2	4.2	5.3	7.0	11	121	42	22	13
10	8.5	16	6.6	4.2	4.2	5.6	7.0	14	118	49	20	13
11	8.4	16	6.6	4.2	4.2	6.0	6.5	16	102	47	20	15
12	7.6	16	6.6	4.2	4.7	7.0	6.0	18	91	45	18	20
13	8.5	16	6.6	4.2	5.0	7.0	5.6	22	91	49	18	16
14	8.6	16	6.6	4.2	5.0	7.0	5.6	24	88	42	18	14
15	10	13	6.6	4.2	5.0	7.0	5.6	27	88	41	15	13
16	11	11	6.6	4.2	5.0	7.0	5.6	34	88	47	14	13
17	12	10	6.6	4.2	5.0	7.0	5.6	35	87	46	15	10
18	12	9.0	6.6	4.2	5.0	7.0	5.6	40	84	61	14	10
19	13	8.0	6.4	4.2	5.0	7.0	5.6	45	79	86	14	10
20	13	7.0	5.4	4.2	5.0	7.0	5.6	50	74	72	12	11
21	14	6.6	4.5	4.2	5.0	7.0	5.6	39	71	95	12	12
22	15	6.6	4.0	4.2	5.0	7.0	5.6	38	67	80	12	13
23	15	6.6	4.0	4.2	5.0	7.0	5.6	45	63	86	12	13
24	15	6.6	4.0	4.2	5.0	7.0	5.6	46	62	70	12	14
25	15	6.6	4.0	4.2	5.0	7.0	5.6	45	66	63	12	14
26	15	6.6	4.0	4.2	5.0	7.0	5.6	46	66	60	12	14
27	15	6.6	4.0	4.2	5.0	7.0	5.6	48	61	52	12	14
28	15	6.6	3.3	4.2	5.0	7.0	5.6	53	54	51	14	15
29	15	6.6	3.3	4.2	---	7.0	5.6	61	53	57	13	16
30	15	6.6	3.3	4.2	---	7.0	5.6	63	51	51	13	17
31	15	---	3.3	4.2	---	7.0	---	57	---	43	12	---
TOTAL	397.9	346.0	172.3	126.0	130.9	196.9	183.3	932.4	2332	1702	602	415
MEAN	12.8	11.5	5.56	4.06	4.67	6.35	6.11	30.1	77.7	54.9	19.4	13.8
MAX	23	16	6.6	4.2	5.0	7.0	7.0	63	124	95	47	20
MIN	7.6	6.6	3.3	3.2	4.2	5.0	5.6	5.6	51	41	12	10
AC-FT	789	686	342	250	260	391	364	1850	4630	3380	1190	823

CAL YR 1984	TOTAL	9029.5	MEAN	24.7	MAX	98	MIN	2.5	AC-FT 17910
WTR YR 1985	TOTAL	7536.7	MEAN	20.6	MAX	124	MIN	3.2	AC-FT 14950

NOTE.--NO GAGE-HEIGHT RECORD OCT. 16 TO MAY 20.

06698000 JEFFERSON CREEK NEAR JEFFERSON, CO

LOCATION.--Lat 39°23'34", long 105°48'38", in SE¼SE¼ sec.31, T.7 S., R.75 W., Park County, Hydrologic Unit 10190001, on right bank 1.2 mi northwest of Jefferson and 1.3 mi upstream from bridge on U.S. Highway 285.

DRAINAGE AREA.--11.8 mi^2.

PERIOD OF RECORD.--May 1978 to current year.

GAGE.--Water-stage recorder and Parshall flume. Elevation of gage is 9,600 ft, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 16-19, Oct. 24 to Apr. 15. Records good except for estimated daily discharges, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--7 years, 9.07 ft^3/3; 6,570 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 76 ft^3/s, July 25, 1984, gage height, 1.89 ft; no flow Jan. 28 to Apr. 5, 1979, May 18, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 51 ft^3/s at 0030 June 9, gage height, 1.43 ft; minimum daily, 1.1 ft^3/s, Dec. 29 to Jan. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	7.8	2.5	1.1	2.0	5.2	3.5	9.2	20	10	37	21
2	21	8.1	2.5	1.1	2.0	5.2	3.5	9.8	19	9.2	46	21
3	19	7.8	2.5	1.2	2.0	5.2	3.5	9.5	18	8.6	46	20
4	21	8.6	2.5	1.3	2.0	5.2	3.5	9.5	18	8.4	45	21
5	21	8.4	2.0	1.3	2.0	5.2	3.5	12	20	8.1	44	20
6	18	8.9	2.0	1.3	2.0	5.2	3.5	14	25	13	43	19
7	18	9.2	2.0	1.3	2.0	4.5	3.5	13	37	39	41	18
8	17	8.4	2.0	1.3	2.2	4.0	3.9	14	44	40	40	17
9	17	7.8	2.0	1.3	2.4	3.3	4.2	14	44	40	40	15
10	16	7.8	2.0	1.3	2.8	3.0	4.5	11	39	44	40	16
11	16	7.0	2.0	1.3	3.0	3.0	5.2	10	31	43	39	16
12	16	5.9	2.0	1.3	3.2	3.0	5.4	8.9	28	42	37	16
13	16	5.4	2.0	1.3	3.5	3.0	6.0	7.0	28	43	36	14
14	17	5.0	2.0	1.3	4.0	3.0	6.6	5.7	31	40	35	13
15	16	4.5	2.0	1.3	4.5	3.0	7.4	4.7	32	37	34	12
16	17	4.0	2.0	1.3	5.0	3.0	7.4	5.4	32	32	33	12
17	16	4.0	2.0	1.3	5.2	3.0	7.5	5.4	31	26	31	13
18	15	4.0	2.0	1.3	5.2	3.0	7.8	6.7	29	18	30	12
19	12	4.0	2.0	1.3	5.2	3.0	7.2	7.2	29	16	28	13
20	10	4.0	2.0	1.3	5.2	3.0	6.2	7.2	28	13	27	12
21	9.8	3.5	2.0	1.3	5.2	3.0	5.4	7.2	24	15	26	13
22	9.2	3.0	2.0	1.3	5.2	3.0	4.2	8.1	23	13	26	12
23	9.2	2.5	2.0	1.3	5.2	3.0	7.8	9.5	22	13	25	12
24	9.2	2.5	2.0	1.3	5.2	3.2	6.2	12	21	13	26	11
25	9.5	2.5	2.0	1.3	5.2	3.3	5.9	15	21	15	25	11
26	11	2.5	1.7	1.3	5.2	3.5	5.7	17	19	14	24	10
27	9.2	2.5	1.5	1.3	5.2	3.5	8.6	19	17	13	24	10
28	7.8	2.5	1.4	1.3	5.2	3.5	7.8	23	13	13	23	8.6
29	8.1	2.5	1.1	1.3	---	3.5	7.8	26	12	14	22	8.4
30	7.8	2.5	1.1	1.6	---	3.5	7.8	26	11	12	21	7.8
31	7.8	---	1.1	2.0	---	3.5	---	22	---	13	21	---
TOTAL	454.6	157.1	59.9	40.8	107.0	112.5	171.0	369.0	766	678.3	1015	424.8
MEAN	14.7	5.24	1.93	1.32	3.82	3.63	5.70	11.9	25.5	21.9	32.7	14.2
MAX	37	9.2	2.5	2.0	5.2	5.2	8.6	26	44	44	46	21
MIN	7.8	2.5	1.1	1.1	2.0	3.0	3.5	4.7	11	8.1	21	7.8
AC-FT	902	312	119	81	212	223	339	732	1520	1350	2010	843

CAL YR 1984 TOTAL 4939.25 MEAN 13.5 MAX 57 MIN .20 AC-FT 9800
WTR YR 1985 TOTAL 4356.0 MEAN 11.9 MAX 46 MIN 1.1 AC-FT 8640

NOTE.--NO GAGE-HEIGHT RECORD NOV. 14 TO APRIL 15.

06699005 TARRYALL CREEK BELOW ROCK CREEK, NEAR JEFFERSON, CO

LOCATION.--Lat 39°27'13", long 105°41'43", in NW¼NW¼ sec.8, T.9 S., R.74 W., Park County, Hydrologic Unit 10190001, on left bank 1,800 ft downstream from Rock Creek, 1.0 mi northwest of Bordenville and 9 mi southeast of Jefferson.

DRAINAGE AREA.--236 mi².

PERIOD OF RECORD.--April 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 9,020 ft, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 16 to May 26. Records good except for estimated daily discharges, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 560 ft³/s, June 28, 1983, gage height 6.47 ft; minimum daily, 6.0 ft³/s, Jan. 25-30, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 271 ft³/s at 1215 June 10, gage height 4.16 ft; minimum daily 6.0 ft³/s, Jan. 25-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83	40	20	14	8.0	24	30	50	112	80	80	36
2	75	40	20	14	10	24	30	60	110	80	97	35
3	68	40	20	14	11	25	30	64	123	74	85	37
4	98	40	20	14	12	26	30	64	135	66	80	46
5	91	40	20	14	13	27	30	64	154	58	73	44
6	78	40	20	8.0	13	29	30	64	148	54	70	35
7	71	40	20	8.0	14	30	28	64	165	75	67	32
8	68	40	20	8.0	20	30	26	64	184	92	65	31
9	69	40	20	8.0	21	30	25	64	204	97	63	29
10	68	40	20	8.0	22	30	25	64	256	106	60	28
11	66	40	20	8.0	23	30	25	74	231	107	59	29
12	64	40	20	6.0	24	30	25	80	180	94	57	44
13	66	35	20	6.0	24	30	25	86	160	107	56	31
14	70	32	20	6.0	24	30	25	90	154	94	56	28
15	61	29	20	6.0	24	30	25	98	151	88	54	25
16	60	27	20	6.0	24	30	25	100	142	88	50	23
17	56	27	14	6.0	24	30	25	98	143	72	50	21
18	52	27	14	6.0	24	30	25	96	142	93	49	21
19	47	27	14	6.0	24	30	25	90	137	199	49	23
20	47	27	14	6.0	24	30	25	88	127	126	46	24
21	47	27	14	6.0	24	30	25	88	112	217	45	31
22	47	27	14	6.0	24	30	25	88	103	148	53	25
23	47	27	14	6.0	24	30	25	88	99	157	45	28
24	47	27	14	6.0	24	30	25	88	101	115	42	25
25	47	27	14	6.0	24	30	25	88	111	95	42	28
26	45	25	14	6.0	24	30	30	90	111	85	39	26
27	42	23	14	6.0	24	30	35	94	102	84	38	26
28	40	21	14	6.0	24	30	40	98	90	75	42	26
29	40	20	14	6.0	---	30	43	101	81	86	39	35
30	40	20	14	6.0	---	30	47	107	80	86	38	31
31	40	---	14	6.0	---	30	---	105	---	74	38	---
TOTAL	1840	955	530	238.0	575.0	905	854	2557	4148	3072	1727	903
MEAN	59.4	31.8	17.1	7.68	20.5	29.2	28.5	82.5	138	99.1	55.7	30.1
MAX	98	40	20	14	24	30	47	107	256	217	97	46
MIN	40	20	14	6.0	8.0	24	25	50	80	54	38	21
AC-FT	3650	1890	1050	472	1140	1800	1690	5070	8230	6090	3430	1790

CAL YR 1984 TOTAL 29747 MEAN 81.3 MAX 457 MIN 10 AC-FT 59000
WTR YR 1985 TOTAL 18304.0 MEAN 50.1 MAX 256 MIN 6.0 AC-FT 36310

NOTE.--NO GAGE-HEIGHT RECORD NOV. 7 TO MAY 27.

RESERVOIRS IN SOUTH PLATTE RIVER BASIN

06695500 ELEVENMILE CANYON RESERVOIR.--Lat 38°54'19", long 105°28'30", in N>SW¼ sec.20, T.13 S., R.72 W., Park County, Hydrologic Unit 10190001, at north end of dam on South Platte River, 8 mi southwest of Lake George. DRAINAGE AREA, 963 mi^2. PERIOD OF RECORD, October 1932 to current year. Prior to September 1938, published in WSP 1310. REVISED RECORDS, WSP 1730: Drainage area. GAGE, nonrecording gage read twice daily. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Denver Board of Water Commissioners); gage readings have been reduced to elevations below National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete arch dam; storage began in October 1932; dam completed in November 1932. Spillway built 5.00 ft, higher, Aug. 1, 1957. Capacity, 97,780 acre-ft, between elevations 8,488.25 ft, invert of outlet pipe, and 8,597.00 ft, crest of spillway. Dead storage is negligible. Figures given represent total contents. Water is for municipal use by city of Denver. Records provided by Denver Board of Water Commissioners.

EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 111,200 acre-ft, Apr.28, 1970, elevation, 8,600.82 ft; no contents at times in 1935.

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 104,300 acre-ft, June 13, elevation, 8,598.87 ft; minimum observed, 98,840 acre-ft, Jan. 20-24, elevation, 8,597.31 ft.

06701000 CHEESMAN LAKE.--Lat 39°12'26", long 105°16'18", in NW¼SW¼ sec.6, T.10 S., R.70 W., Douglas County, Hydrologic Unit 10190002, at dam on South Platte River, 4.1 mi southwest of Deckers. DRAINAGE AREA, 1,752 mi^2. PERIOD OF RECORD, September 1900 to December 1901, September 1902 to current year. Prior to October 1938, published in WSP 1310. Published as Lake Cheesman prior to 1947. REVISED RECORDS, WSP 1730: Drainage area. GAGE, nonrecording gage read twice daily. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Denver Board of Water Commissioners).

Reservoir is formed by masonry dam. Storage began September 1900. Dam completed about October 1902. Capacity, 79,060 acre-ft at gage height 212 ft, spillway crest, above sill of lowest gate. No dead storage. Figures given represent total contents. Water is for municipal use by city of Denver. Records provided by Denver Board of Water Commissioners.

EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 81,360 acre-ft, Apr. 29, 1970, gage height, 214.60 ft; minimum observed since appreciable storage was attained, 3,650 acre-ft, Apr. 20, 1933, gage height, 55.02 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 80,050 acre-ft, June 11, gage height, 213.12 ft; minimum observed, 69,640 acre-ft, Sept. 19, gage height, 200.80 ft.

MONTHEND ELEVATION IN FEET AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

Date	Elevation a(feet)	Contents (acre-feet)	Change in contents (acre-feet)	Gage height (feet)	Contents (acre-feet)	Change in contents (acre-feet)
	06695500	ELEVENMILE CANYON RESERVOIR		06701000	CHEESMAN LAKE	
Sept. 30..........	8,597.52	99,570	-	212.46	79,470	-
Oct. 31..........	8,598.23	102,000	+2,430	211.62	78,730	-740
Nov. 30..........	8,597.40	99,160	-2,840	209.85	77,200	-1,530
Dec. 31..........	8,597.32	98,880	-280	210.30	77,590	+390
CAL YR 1984...	-	-	+1,100	-	-	+1,120
Jan. 31...........	8,597.44	99,290	+410	209.70	77,070	-520
Feb. 28...........	8,597.46	99,350	+60	209.05	76,510	-560
Mar. 31...........	8,597.39	99,110	-240	210.78	78,000	+1,490
Apr. 30...........	8,597.80	100,500	+1,390	212.89	79,840	+1,840
May 31...........	8,598.25	102,100	+1,600	212.86	79,820	-20
June 30...........	8,598.20	101,900	-200	212.68	79,660	-160
July 31...........	8,598.26	102,100	+200	212.74	79,710	+50
Aug. 31...........	8,597.81	100,600	-1,500	206.24	74,130	-5,580
Sept.30...........	8,597.53	99,660	-940	204.26	72,480	-1,650
WTR YR 1985....	-	-	+90	-	-	-6,990

a NATIONAL GEODETIC VERTICAL DATUM OF 1929.

06701500 SOUTH PLATTE RIVER BELOW CHEESMAN LAKE, CO

LOCATION.--Lat 39°12'33", long 105°16'02", in SE¼NW¼ sec.6, T.10 S., R.70 W., Jefferson County, Hydrologic Unit 10190002, on left bank 1,400 ft downstream from toe of Cheesman Dam and 3.8 mi southwestof Deckers.

DRAINAGE AREA.--1,752 mi^2.

PERIOD OF RECORD.--October 1924 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1949. WSP 1730: Drainage area.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 6,609.29 ft above National Geodetic Vertical Datum of 1929. Prior to May 14, 1956, at site 370 ft upstream at datum 0.50 ft, higher.

REMARKS.--Estimated daily discharges: Oct. 16-24, Dec. 22 to Jan. 2, Jan. 10-14, Feb. 25 to Mar. 11. Records good except for estimated daily discharges, which are fair. Natural flow of stream affected by minor transmountain diversion from Colorado River basin through Boreas Pass ditch, Elevenmile Canyon Reservoir and Cheesman Lake (see elsewhere in this report), diversions for irrigation of about 40,000 acres, and return flow from irrigated areas. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--61 years, 165 ft^3/s; 119,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,640 ft^3/s, Apr. 29, 1970, gage height, 13.4 ft, from floodmarks, by computation of outflow from Cheesman Lake; minimum daily determined, 1.6 ft^3/s, Apr. 8-14, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,120 ft^3/s at 1200 June 12, gage height, 4.31 ft; minimum daily, 16 ft^3/s, Mar.14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	262	487	101	66	119	54	151	713	688	450	558	548
2	262	506	101	86	151	54	194	699	681	426	677	545
3	264	506	101	96	151	54	226	674	681	417	632	408
4	305	506	101	96	151	54	226	677	710	402	568	311
5	388	432	101	96	151	54	147	684	724	397	512	311
6	391	338	101	96	151	54	99	695	735	382	465	311
7	362	308	79	96	151	54	99	728	739	377	426	311
8	351	308	65	96	149	106	106	728	728	388	394	311
9	349	308	65	96	149	108	174	728	775	399	357	311
10	349	308	87	96	149	108	277	720	894	554	332	311
11	343	305	99	96	149	79	329	710	1040	695	313	311
12	332	305	113	96	149	54	351	713	1110	802	303	311
13	329	305	119	96	108	20	349	746	1080	832	290	311
14	349	277	119	97	79	16	354	731	1040	828	295	311
15	371	216	119	60	79	69	377	742	994	779	287	311
16	385	189	119	50	79	119	397	724	918	702	279	311
17	425	189	119	50	79	121	411	720	855	674	269	311
18	440	189	119	51	79	121	417	772	817	674	262	311
19	415	189	119	51	79	111	417	764	805	515	259	311
20	375	189	108	51	79	117	385	735	753	221	349	204
21	390	189	79	51	79	172	349	717	706	164	357	96
22	440	189	71	51	79	192	338	746	653	142	316	96
23	435	189	71	63	81	192	332	768	611	142	313	58
24	435	189	71	73	81	192	324	779	594	421	343	35
25	435	189	71	79	77	192	351	790	584	724	362	42
26	435	189	66	153	52	194	338	787	581	699	420	42
27	432	174	66	153	52	179	311	764	571	653	519	42
28	432	124	66	110	51	160	340	739	535	604	554	42
29	432	101	66	87	---	151	399	720	506	656	554	42
30	432	99	66	81	---	151	574	710	478	642	551	42
31	450	---	66	81	---	151	---	695	---	588	548	---
TOTAL	11795	7992	2814	2600	2983	3453	9142	22618	22586	16349	12664	7218
MEAN	380	266	90.8	83.9	107	111	305	730	753	527	409	241
MAX	450	506	119	153	151	194	574	790	1110	832	677	548
MIN	262	99	65	50	51	16	99	674	478	142	259	35
AC-FT	23400	15850	5580	5160	5920	6850	18130	44860	44800	32430	25120	14320

CAL YR 1984 TOTAL 142267 MEAN 389 MAX 1710 MIN 15 AC-FT 282200
WTR YR 1985 TOTAL 122214 MEAN 335 MAX 1110 MIN 16 AC-FT 242400

06706000 NORTH FORK SOUTH PLATTE RIVER BELOW GENEVA CREEK, AT GRANT, CO

LOCATION.--Lat 39°27'26", long 105°39'29", in NW¼ sec.10, T.7 S., R.74 W., Park County, Hydrologic Unit 10190002, on left bank at Grant, 1,550 ft downstream from Geneva Creek, and 1.3 mi downstream from east portal of Harold D. Roberts tunnel.

DRAINAGE AREA.--127 mi^2.

PERIOD OF RECORD.--July 1908 to November 1913 (published as "at Cassells"), June 1942 to current year. Monthly discharge only for some periods, published in WSP 1310. December 1913 to March 1918, equivalent records may be obtained by summation of flow of North Fork South Platte River at Grant (above Geneva Creek) and Geneva Creek at Grant.

REVISED RECORDS.--WSP 956: Drainage area at site at Cassells. WSP 1116: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 8,560.81 ft above National Geodetic Vertical Datum of 1929, adjustment of 1960. See WSP 1710 or 1730 for history of changes prior to July 23, 1948. July 23, 1948, to Nov. 15, 1968, water-stage recorder at site 50 ft downstream at datum 3.49 ft, lower.

REMARKS.--Estimated daily discharges: Oct. 16 to Mar. 15, 17, 18, Mar. 21 to Apr. 6, 23, Sept. 29, 30. Records good except for estimated daily discharges, which are poor. Small diversions above station for irrigation of about 200 acres. Diversions from Colorado River basin to North Fork South Platte River above station through Harold D. Roberts tunnel (see elsewhere in this report). Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--48 years (water years 1909-13, 1943-85), 70.6 ft^3/s; 51,150 acre-ft/yr, adjusted for inflow from Harold D. Roberts tunnel since 1964.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 990 ft^3/s, June 7, 8, 1912, gage height, 3.30 ft, site and datum then in use, from rating curve extended above 530 ft^3/s; maximum gage height, 4.72 ft, site and datum then in use, Feb. 11, 1952 (backwater from ice); minimum daily discharge, 6.5 ft^3/s, Nov. 27, 1958.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 546 ft^3/s at 2300 June 8, gage height, 1.87 ft; minimum daily, 17 ft^3/s, Feb. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	88	52	36	28	18	24	25	79	235	150	103	39
2	91	50	36	25	17	24	27	85	240	146	118	41
3	94	50	36	25	18	24	27	115	245	138	97	54
4	112	49	35	26	19	23	27	142	250	134	88	70
5	100	48	34	26	19	22	25	154	255	134	85	65
6	94	49	34	27	19	23	26	146	292	134	85	63
7	82	50	34	27	19	23	30	154	378	130	82	61
8	79	52	35	27	19	22	34	184	434	130	79	61
9	79	50	35	26	20	22	36	202	427	154	76	45
10	76	46	34	25	22	24	36	192	392	162	79	37
11	73	47	32	24	21	23	41	184	333	142	79	42
12	70	47	29	23	21	22	39	154	304	130	76	49
13	73	47	27	23	21	21	42	142	298	130	73	41
14	76	47	25	23	21	21	53	130	298	124	70	39
15	56	45	25	23	22	21	65	127	298	124	68	37
16	50	43	26	23	22	21	65	127	298	121	65	37
17	45	40	26	23	22	21	65	130	298	121	63	34
18	45	35	26	24	21	21	68	146	292	163	65	36
19	43	32	26	24	21	21	61	158	276	188	63	39
20	45	31	26	24	22	21	47	146	260	154	58	37
21	44	30	26	23	23	21	49	150	255	150	58	37
22	42	30	26	22	23	22	44	146	240	134	58	39
23	43	32	27	22	23	21	44	170	225	138	54	41
24	44	33	27	22	22	22	44	206	215	121	54	39
25	44	32	27	23	24	24	42	245	225	112	52	41
26	45	32	27	24	22	23	39	245	220	112	49	39
27	47	30	28	25	20	27	50	255	188	109	49	39
28	49	32	30	23	23	25	61	287	166	103	47	41
29	52	35	31	23	---	24	61	298	158	112	44	41
30	52	35	31	22	---	22	65	282	154	103	41	41
31	52	---	31	20	---	23	---	245	---	97	39	---
TOTAL	1985	1231	928	745	584	698	1338	5426	8149	4100	2117	1325
MEAN	64.0	41.0	29.9	24.0	20.9	22.5	44.6	175	272	132	68.3	44.2
MAX	112	52	36	28	24	27	68	298	434	188	118	70
MIN	42	30	25	20	17	21	25	79	154	97	39	34
AC-FT	3940	2440	1840	1480	1160	1380	2650	10760	16160	8130	4200	2630

CAL YR 1984 TOTAL 37374 MEAN 102 MAX 455 MIN 14 AC-FT 74130
WTR YR 1985 TOTAL 28626 MEAN 78.4 MAX 434 MIN 17 AC-FT 56780

06709500 PLUM CREEK NEAR LOUVIERS, CO

LOCATION.--Lat 39°29'04", long 105°00'07", in SE¼ sec.33, T.6 S., R.68 W., Douglas County, Hydrologic Unit 10190002, on downstream side of bridge on county road from U.S. Highway 85 to Louviers, 0.8 mi northeast of Louviers, 1.2 mi downstream from Indian Creek, and 7.5 mi upstream from mouth.

DRAINAGE AREA.--302 mi².

PERIOD OF RECORD.--October 1947 to current year.

REVISED RECORDS.--WSP 1730: 1958, drainage area at site 2.5 mi downstream. WSP 1918: 1957(M).

GAGE.--Water-stage recorder. Elevation of gage is 5,585 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Feb. 12, 1957, at site 2.5 mi downstream, and Nov. 7, 1965, to Aug. 6, 1966, at site 2.2 mi downstream at different datums. Feb. 12, 1957, to Nov. 6, 1965, at present site at about present datum. Low-flow records may not be equivalent with station 06709530 Plum Creek at Titan Road near Louviers, located at former site, because of possible undetermined losses between sites.

REMARKS.--Estimated daily discharges: Jan. 2 to Mar. 6. Records poor. Diversions above station for irrigation. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--38 years, 34.2 ft³/s; 24,780 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 154,000 ft³/s, June 16, 1965, gage height, 22.4 ft, from floodmarks, by slope-area measurement of peak flow; no flow at times in 1951-52, 1956-60, 1963-64.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than above base discharges of 220 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Jan. 28	2400	(a)	*4.98	May 1	1800	*725	3.48

(a) Backwater from ice.
Minimum daily discharge, 8.2 ft³/s, Sept. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	72	50	33	25	30	74	588	109	16	45	13
2	35	72	40	35	25	35	62	474	102	15	72	20
3	42	67	38	37	25	35	69	409	86	15	74	9.8
4	80	60	40	38	25	35	80	331	118	15	50	8.2
5	102	77	36	42	25	42	69	290	74	12	55	13
6	69	74	43	45	25	48	80	287	80	17	50	8.7
7	57	80	48	47	25	66	80	256	64	10	42	9.8
8	57	86	47	45	25	47	77	227	57	9.8	32	10
9	55	93	60	40	25	44	70	199	57	9.8	27	10
10	48	96	72	3[illegible]	25	50	80	188	93	10	28	15
11	64	93	67	30	25	49	83	182	64	11	26	15
12	55	90	57	26	25	45	86	181	52	9.2	27	55
13	52	77	36	26	25	43	89	202	57	10	30	30
14	50	77	45	26	25	43	126	166	52	15	33	23
15	64	114	50	26	27	47	139	170	64	15	23	18
16	64	83	50	26	29	43	109	174	62	15	19	20
17	99	80	35	26	31	42	144	257	50	15	22	15
18	93	72	32	24	31	38	118	208	52	16	24	12
19	80	83	40	24	31	40	148	159	50	21	33	10
20	83	83	38	24	31	40	126	179	36	48	29	20
21	109	72	47	24	31	40	126	174	24	42	22	22
22	72	86	32	24	31	32	148	189	27	36	20	32
23	83	64	38	24	31	55	158	174	30	45	23	28
24	77	69	47	24	30	60	148	167	30	45	20	16
25	90	64	43	24	28	64	139	153	24	32	22	18
26	93	64	43	24	27	62	118	155	33	33	17	15
27	96	55	52	24	27	62	99	135	32	28	15	17
28	80	60	47	24	27	67	115	114	23	26	15	22
29	69	55	40	25	---	80	115	105	23	47	9.2	36
30	60	55	28	25	---	65	432	102	16	62	11	28
31	69	---	29	25	---	67	---	109	---	48	10	---
TOTAL	2171	2273	1370	922	762	1516	3507	6704	1641	748.8	925.2	569.5
MEAN	70.0	75.8	44.2	29.7	27.2	48.9	117	216	54.7	24.2	29.8	19.0
MAX	109	114	72	47	31	80	432	588	118	62	74	55
MIN	24	55	28	24	25	30	62	102	16	9.2	9.2	8.2
AC-FT	4310	4510	2720	1830	1510	3010	6960	13300	3250	1490	1840	1130

CAL YR 1984 TOTAL 49786 MEAN 136 MAX 2160 MIN 22 AC-FT 98750
WTR YR 1985 TOTAL 23109.5 MEAN 63.3 MAX 588 MIN 8.2 AC-FT 45840

06709530 PLUM CREEK AT TITAN ROAD NEAR LOUVIERS, CO.

LOCATION.--Lat 39°30'27", long 105°01'26", on line between sec.20 and sec.29, T.6 S., R.68 W., Douglas County, Hydrologic Unit 10190002, on upstream side of bridge on Titan Road, 2.4 mi north of Louviers.

DRAINAGE AREA.--102 mi^2.

PERIOD OF RECORD.--May 1, 1984 to current year. Low-flow records may not be equivalent with station 06709500 Plum Creek near Louviers because of possible undetermined channel losses between sites.

GAGE.--Water-stage recorder. Elevation of gage is 5,520 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 5 to Mar. 6. Records poor due to unstable channel conditions. Diversions above station for irrigation. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 2,300 ft^3/s, May 15, 1984, gage height, 7.00 ft; maximum gage-height, 7.52 ft, Dec. 25, 1985 (backwater from ice); minimum daily discharge, 6.5 ft^3/s Sept. 4, 1985.

EXTREMES FOR PERIOD.--Maximum discharge, during period May to September, 1984, 2,300 ft^3/s May 15, gage height 7.00 ft; minimum daily 22 ft^3/s Aug. 26.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 984 ft^3/s at 1900 Apr. 30, gage height, 6.32 ft; maximum gage height, 8.02 ft, Dec. 25 (backwater from ice); minimum daily discharge, 6.5 ft^3/s Sept. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								331	289	73	77	28
2								371	237	44	132	31
3								331	331	39	89	33
4								321	269	39	62	33
5								425	220	34	54	33
6								411	160	34	59	36
7								411	197	36	73	33
8								498	153	65	52	41
9								531	126	57	41	31
10								695	111	46	46	33
11								1090	105	44	29	41
12								1450	121	49	39	29
13								1530	126	36	36	29
14								1450	126	34	44	33
15								1770	142	34	44	33
16								1530	126	31	44	34
17								1380	105	31	83	29
18								1420	85	31	211	33
19								1220	116	26	46	30
20								929	105	52	52	35
21								825	105	52	73	32
22								902	89	39	59	27
23								847	66	44	54	23
24								717	111	39	225	24
25								673	70	54	33	28
26								498	96	62	33	29
27								425	73	59	22	26
28								371	66	66	31	28
29								300	54	54	46	29
30								237	62	41	49	29
31								258	---	62	26	---
TOTAL								24147	4042	1407	1964	933
MEAN								779	135	45.4	63.4	31.1
MAX								1770	331	73	225	41
MIN								237	54	26	22	23
AC-FT								47900	8020	2790	3900	1850

06709530 PLUM CREEK AT TITAN ROAD NEAR LOUVIERS, CO--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	81	52	33	25	30	81	548	126	16	31	13
2	28	81	39	35	25	35	73	465	116	19	73	28
3	33	81	36	37	25	35	70	371	126	19	54	8.6
4	66	62	44	38	25	35	85	344	126	15	57	6.5
5	100	66	42	42	25	42	77	258	77	13	54	12
6	70	66	40	45	25	42	77	257	73	11	46	10
7	57	77	48	47	25	66	70	264	73	11	33	10
8	62	81	48	45	25	66	73	190	54	9.1	28	9.1
9	54	92	60	40	25	52	62	160	57	9.1	33	9.1
10	59	96	66	35	25	46	70	175	85	9.1	36	16
11	62	96	66	30	25	52	77	175	59	10	29	18
12	49	81	60	26	25	54	73	190	54	10	24	44
13	49	77	36	26	25	44	89	205	57	12	28	28
14	62	92	45	26	25	49	111	190	59	12	33	22
15	70	100	50	26	27	39	131	183	54	13	21	19
16	70	49	50	26	29	41	96	168	52	16	15	21
17	100	81	35	26	31	44	160	237	49	16	19	10
18	100	73	32	24	31	36	137	197	46	21	33	10
19	121	85	40	24	31	34	153	168	52	22	34	7.5
20	92	81	38	24	31	36	142	190	33	39	22	16
21	96	77	47	24	31	41	126	190	29	36	18	22
22	89	96	32	24	31	41	168	197	21	36	18	22
23	92	73	38	24	31	54	175	183	29	49	17	28
24	81	70	47	24	30	52	160	175	41	34	17	14
25	85	70	43	24	28	70	137	168	29	29	14	22
26	89	66	43	24	27	73	148	153	39	36	11	15
27	96	62	52	24	27	66	105	126	36	36	11	10
28	77	62	47	24	27	66	142	116	21	33	13	16
29	62	54	40	25	---	66	160	111	21	62	10	28
30	59	49	28	25	---	70	548	116	15	49	9.1	33
31	59	---	29	25	---	73	---	116	---	36	8.1	---
TOTAL	2225	2277	1373	922	762	1550	3776	6586	1709	738.3	849.2	527.8
MEAN	71.8	75.9	44.3	29.7	27.2	50.0	126	212	57.0	23.8	27.4	17.6
MAX	121	100	66	47	31	73	548	548	126	62	73	44
MIN	28	49	28	24	25	30	62	111	15	9.1	8.1	6.5
AC-FT	4410	4520	2720	1830	1510	3070	7490	13060	3390	1460	1680	1050

WTR YR 1985 TOTAL 23295.3 MEAN 63.8 MAX 548 MIN 6.5 AC-FT 46210

06709600 CHATFIELD LAKE NEAR LITTLETON, CO

LOCATION.--Lat 39°33'26", long 105°03'27", in NW¼SE¼ sec.1, T.6 S., R.69 W., Jefferson County, Hydrologic Unit 10190002, near left end of dam on South Platte River at mouth of Plum Creek and 4.7 mi southwest of courthouse in Littleton.

DRAINAGE AREA.--3,018 mi^2.

PERIOD OF RECORD.--Contents, May 1975 to current year. Water-quality data available, October 1976 to September 1981.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army, Corps of Engineers); gage readings have been reduced to elevations above National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by earthfill dam. Storage began May 29, 1975. Capacity, 235,000 acre-ft at elevation 5,500 ft, crest of spillway. No dead storage. Figures given represent total contents. Reservoir is for flood control and recreation.

COOPERATION.--Records provided by U.S. Army, Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 54,690 acre-ft, May 26, 1980, elevation, 5,447.58 ft; no contents prior to May 29, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 29,620 acre-ft, May 1, 2, elevation, 5,434.01 ft; minimum, 20,160 acre-ft, Sept. 2, elevation, 5,426.98 ft.

MONTHEND ELEVATION AND CONTENTS, AT 1200, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	5,432.09	26,820	-
Oct. 31	5,432.30	27,120	+300
Nov. 30	5,432.05	26,760	-360
Dec. 31	5,432.65	27,620	+860
CAL YR 1984	-	-	+720
Jan. 31	5,432.26	27,060	-560
Feb. 28	5,432.17	26,940	-120
Mar. 31	5,432.43	27,310	+370
Apr. 30	5,433.25	28,500	+1,190
May 31	5,432.01	26,710	-1,790
June 30	5,430.99	25,290	-1,420
July 31	5,431.79	26,400	+1,110
Aug. 31	5,427.37	20,630	-5,770
Sept. 30	5,429.03	22,690	+2,060
WTR YR 1985	-	-	-4,130

06710000 SOUTH PLATTE RIVER AT LITTLETON, CO

LOCATION.--Lat 39°37'08", long 105°01'07", in NE¼ sec.17, T.5 S., R.68 W., Arapahoe County, Hydrologic Unit 10190002, on left bank 200 ft downstream from Crestline Ave. Bridge at Littleton, 3.1 mi upstream from Bear Creek, and 6.3 mi downstream from Chatfield Dam.

DRAINAGE AREA.--3,069 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1941 to current year.

REVISED RECORDS.--WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,304.36 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Nov. 23, 1948, nonrecording gage on bridge 200 ft upstream at datum 1.00 ft, higher. Nov. 23, 1948, to Sept. 30, 1951, water-stage recorder at present site at datum 1.00 ft, higher.

REMARKS.--Estimated daily discharges: Jan. 23, Feb. 1-7. Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by transmountain diversions, storage and flood-control reservoirs, power developments, diversions for irrigation and municipal use, and return flow from irrigated areas. Flow regulated by Chatfield Dam since May 29, 1975 (station 06709600).

AVERAGE DISCHARGE.--33 years (water years 1942-74), 234 ft³/s; 169,500 acre-ft/yr, prior to completion of Chatfield Dam: 10 years (water years 1976-85), 286 ft³/s; 207,200 acre-ft/yr, subsequent to completion of Chatfield Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 110,000 ft³/s, June 16, 1965, gage height, 15.45 ft, from floodmarks, estimated from contracted-opening and flow-over-road measurement of peak flow at point 1.6 mi, downstream and slope-area measurement of peak flow on Plum Creek at point 12.7 mi, upstream; minimum daily, 7.2 ft³/s, Oct. 2, 1956. Stage and discharge of the flood of June 16, 1965, are the greatest since at least 1894.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,330 ft³/s at 1100 May 2, gage height, 4.61 ft; minimum daily, 23 ft³/s, Feb. 27, 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	198	842	124	321	55	32	54	1770	951	396	670	287
2	310	821	122	198	55	56	53	2150	953	374	621	230
3	398	939	120	55	55	58	103	2230	954	343	760	179
4	939	944	143	110	55	87	274	2190	1120	273	813	168
5	968	941	214	177	55	124	367	2040	1230	252	666	226
6	845	936	171	180	55	126	362	1920	974	358	515	232
7	844	934	118	235	55	128	357	1790	616	419	447	116
8	839	927	117	237	111	184	353	1530	617	484	353	115
9	843	922	116	119	223	236	346	1230	913	488	282	104
10	844	915	172	127	223	238	290	1030	1120	488	363	43
11	839	797	108	193	125	151	312	1030	1250	486	312	38
12	828	433	308	331	58	72	434	1090	1320	485	252	41
13	729	335	309	330	54	77	523	1330	1180	490	266	39
14	672	221	398	219	43	72	516	1600	1010	495	286	39
15	764	139	481	97	60	112	463	1460	846	710	299	39
16	871	135	354	94	110	253	414	1210	764	758	371	40
17	966	272	190	92	99	260	416	1150	758	757	400	35
18	1050	405	53	94	47	177	447	1220	799	664	318	34
19	967	449	48	94	75	75	475	1400	879	432	233	28
20	834	581	49	94	154	101	480	1460	966	244	230	32
21	824	509	49	93	179	135	488	1400	769	154	234	34
22	775	451	109	93	197	90	398	1330	547	138	265	36
23	740	451	395	90	209	144	178	1280	361	135	291	34
24	738	452	313	89	203	145	265	1330	190	136	288	34
25	740	452	226	91	134	145	529	1370	257	332	267	32
26	734	393	149	91	45	147	659	1360	538	622	210	34
27	734	209	53	91	23	150	867	1270	824	695	174	36
28	731	323	51	88	23	130	944	1060	905	697	177	36
29	802	130	52	55	---	64	687	1000	594	703	194	45
30	918	125	163	52	---	59	1160	968	506	848	246	36
31	944	---	319	56	---	55	---	949	---	844	290	---
TOTAL	24228	16383	5594	4286	2780	3883	13214	44147	24711	14700	11093	2422
MEAN	782	546	180	138	99.3	125	440	1424	824	474	358	80.7
MAX	1050	944	481	331	223	260	1160	2230	1320	848	813	287
MIN	198	125	48	52	23	32	53	949	190	135	174	28
AC-FT	48060	32500	11100	8500	5510	7700	26210	87570	49010	29160	22000	4800

CAL YR 1984 TOTAL 244367 MEAN 668 MAX 2940 MIN 42 AC-FT 484700
WTR YR 1985 TOTAL 167441 MEAN 459 MAX 2230 MIN 23 AC-FT 332100

06710000 SOUTH PLATTE RIVER AT LITTLETON, CO--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1970 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1979 to current year.
WATER TEMPERATURES: April 1970 to current year.

INSTRUMENTATION.--Temperature recorder since April 1970.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 692 microsiemens Dec. 4, 1981; minimum daily, 118 microsiemens Dec. 3, 1979.
WATER TEMPERATURES: Maximum, 32°C June 12, 1979; minimum, freezing point on many days during winter months most years.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 555 microsiemens Sept. 18; minimum daily, 238 microsiemens May 25.
WATER TEMPERATURES: Maximum, 24.0°C Aug. 21, 26, Aug. 28, 30; minimum, 1.0°C Jan. 20, 22-24, 30, 31, Feb. 1-8.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)
NOV 19...	13:30	406	340	8.3	6.0	6.0	12.6	K8	<29	120	30
JAN 17...	13:00	92	430	8.9	4.0	2.8	15.2	62	190	400	290
APR 16...	13:30	417	350	8.4	13.0	3.6	10.4	K8	390	130	39
MAY 21...	13:15	1490	260	8.1	13.0	12	9.4	K32	76	91	20
JUL 31...	09:30	946	330	8.2	19.0	6.9	8.6	100	410	100	14
SEP 17...	13:00	61	509	8.6	20.0	4.0	11.0	370	610	180	53

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
NOV 19...	32	9.1	22	28	0.9	2.2	88	42	25	1.2	10
JAN 17...	100	37	77	29	2	2.4	112	68	28	1.1	12
APR 16...	38	9.4	22	26	0.9	2.7	95	43	22	1.0	8.7
MAY 21...	25	6.8	16	27	0.8	1.9	71	29	14	1.1	13
JUL 31...	27	8.9	22	31	1	2.0	90	35	24	0.9	8.9
SEP 17...	49	13	37	31	1	3.2	123	79	34	1.1	8.7

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)
NOV 19...	202	200	0.27	221	0.18	0.03	0.3	0.03	0.01	<0.01
JAN 17...	247	390	0.34	61	0.35	0.03	--	--	0.04	0.03
APR 16...	213	200	0.29	240	0.26	0.17	0.5	0.03	0.03	0.01
MAY 21...	149	150	0.2	599	0.12	0.05	1.3	0.04	0.01	0.01
JUL 31...	192	180	0.26	490	<0.10	0.05	1.0	0.03	<0.01	0.09
SEP 17...	307	300	0.42	51	0.31	0.11	0.7	0.07	0.04	<0.01

K BASED ON NON-IDEAL COLONY COUNT.

06710000 SOUTH PLATTE RIVER AT LITTLETON, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
NOV											
19...	13:30	40	<1	49	<0	<1	<1	<3	3	20	<1
JAN											
17...	13:00	20	<1	100	23	12	1	<3	2	42	2
MAY											
21...	13:15	80	<1	44	<0.5	<1	<1	<3	2	130	<1
SEP											
17...	13:00	30	<1	74	<0.5	<1	1	<3	4	17	<2

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, DISSOLVED (UG/L AS ZN)
NOV										
19...	11	44	0.1	<10	1	<1	260	<6	<1	49
JAN										
17...	55	92	<0.1	<10	4	2	1100	<6	<1	61
MAY										
21...	13	22	<0.1	<10	3	<1	190	<6	<1	<3
SEP										
17...	18	30	0.1	<10	4	2	420	<6	<2	26

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25 DEG. C, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	349	355		274	327	406	351	293	253		329	321
2	342	352		287	270	402	346	282	312		318	324
3	345	351		286	316	394	346	284	314		332	399
4	345	353		285	298	399	348	254	305		326	369
5	338	350		303	324	395	348	249	298		320	410
6	332	351		290	378	400	343	253	306		323	355
7	340	349		291	385	400	343	249	308		321	363
8	347	350		287	398	407	342	245	311		393	423
9	337	350		289	402	402	340	247	313		329	398
10	337	350		358	399	402	339	259	248		334	364
11	337	353		357	407	379	333	258	256		397	393
12	340	351		359	412	379	340	252	314		341	465
13	336	351		370	418	379	339	256	303		383	399
14	336	348		357	416	376	339	247	314		323	389
15	337	348		427	423	374	341	254	301		316	481
16	333	348		427	417	376	343	267	305		319	523
17	338	348		428	396	374	340	248	290		333	552
18	339	349		430	402	374	337	243	300		331	555
19	338	350		426	407	351	---	252	308		319	546
20	346	351		430	427	351	---	255	308		323	551
21	350	354		431	425	349	321	255	311		321	550
22	355	366		430	415	351	296	248	302		325	551
23	350	354		431	415	350	290	243	295		324	550
24	352	353		433	418	351	293	249	316		317	518
25	347	352		430	422	341	293	238	301		325	553
26	347	351		433	415	348	284	248	308		335	550
27	347	357		437	415	345	283	251	314		381	554
28	347	356		433	426	346	284	256	306		351	550
29	353	360		434	---	346	283	256	291		322	547
30	351	355		---	---	346	282	263	295		330	553
31	345	---		---	---	348	---	265	---		328	---
MEAN	343	352		374	392	372	324	255	300		334	469

WTR YR 1985 MEAN 351 MAX 555 MIN 238

06710000 SOUTH PLATTE RIVER AT LITTLETON, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.0	12.0	8.5	7.0	5.0	2.5	3.5	2.0	1.0	1.0	9.0	3.5
2	15.5	13.0	10.0	7.0	4.5	2.5	3.5	1.5	1.0	1.0	7.0	4.0
3	15.0	13.0	8.0	7.0	4.0	2.0	3.5	2.0	1.5	1.0	5.5	3.0
4	14.0	12.5	8.0	7.0	4.5	2.5	4.5	2.5	1.5	1.0	7.0	1.5
5	13.0	12.5	8.0	7.0	3.5	2.0	4.5	2.5	1.5	1.0	7.5	2.5
6	14.5	13.0	7.0	7.0	4.0	2.0	4.5	2.5	1.5	1.0	8.0	3.5
7	14.0	13.0	8.0	7.0	5.0	2.0	3.0	2.5	3.0	1.0	8.0	3.5
8	14.0	13.0	7.5	6.5	4.0	3.0	3.5	3.0	4.0	1.0	7.5	3.5
9	13.0	12.5	7.0	6.5	5.0	3.0	3.0	2.0	3.5	2.5	7.5	4.0
10	13.0	12.0	7.0	6.0	4.5	2.5	3.5	1.5	4.5	2.0	7.0	4.5
11	14.5	13.0	7.0	6.0	6.0	3.0	3.0	2.0	5.5	1.5	7.0	4.5
12	14.0	13.0	7.5	6.0	3.5	3.0	3.5	2.0	6.0	2.0	9.0	5.0
13	14.5	12.5	8.5	6.0	3.5	2.5	4.0	2.0	5.5	2.5	10.0	4.0
14	12.5	11.0	8.0	6.0	3.0	2.5	4.5	2.5	6.0	2.0	10.0	4.0
15	11.5	9.5	7.5	5.0	3.0	2.5	3.5	2.0	5.5	2.5	10.5	4.5
16	11.0	9.0	6.5	5.0	4.0	2.5	3.5	2.0	5.5	2.5	8.0	5.0
17	10.0	9.0	6.5	5.0	4.0	2.0	4.5	2.0	6.0	3.0	9.0	4.5
18	10.0	9.0	6.5	5.0	4.5	2.0	4.5	2.0	7.0	2.5	10.0	5.0
19	10.0	9.0	6.0	4.5	4.5	2.0	3.5	1.5	7.5	2.5	9.5	6.0
20	9.5	9.0	6.0	4.5	5.0	2.0	3.5	1.0	6.5	3.5	11.0	5.5
21	9.0	8.5	6.0	4.5	4.0	2.0	2.5	1.5	4.5	4.0	11.0	5.5
22	8.5	8.0	5.5	4.5	4.0	1.5	3.5	1.0	6.5	3.0	9.5	4.5
23	9.0	8.0	5.5	4.5	3.5	2.5	4.0	1.0	6.0	3.0	9.5	5.0
24	8.5	7.5	5.5	4.5	3.5	2.5	4.5	1.0	6.5	2.5	11.5	5.0
25	9.0	7.0	5.0	4.5	3.0	2.0	5.0	1.5	8.0	3.5	11.5	5.5
26	9.0	8.0	4.5	4.0	5.0	2.0	4.0	2.5	7.5	2.5	10.5	6.0
27	9.0	8.0	5.0	3.0	6.5	3.0	3.5	2.5	7.5	2.0	10.0	6.0
28	9.0	7.5	5.5	3.5	6.0	3.5	5.0	2.0	8.5	3.0	9.5	6.5
29	9.0	7.5	5.0	3.0	5.5	3.0	3.5	2.0	---	---	6.5	4.0
30	8.0	7.5	5.0	2.5	5.5	2.5	2.0	1.0	---	---	10.0	3.5
31	8.5	7.0	---	---	4.0	3.0	---	1.0	---	---	10.0	5.0
MONTH	16.0	7.0	10.0	2.5	6.5	1.5	5.0	1.0	8.5	1.0	11.5	1.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	12.5	5.5	12.5	10.5	17.0	15.0	21.5	18.5	21.0	19.0	23.5	20.0
2	14.0	6.5	12.5	11.0	17.0	15.0	22.0	18.0	21.0	19.0	23.0	19.5
3	14.0	7.0	13.0	11.5	17.0	15.5	22.5	18.5	21.5	19.0	22.5	19.0
4	9.0	7.0	13.0	11.5	16.5	15.0	23.5	18.5	21.5	19.0	23.0	19.5
5	9.5	7.0	13.5	11.5	17.5	15.5	23.5	18.0	22.5	19.5	23.0	18.5
6	8.0	7.0	13.0	11.5	18.0	16.0	22.5	18.5	22.5	19.5	22.5	19.0
7	10.5	7.0	13.5	12.5	19.0	16.0	23.0	19.0	22.0	19.0	22.5	17.5
8	10.0	7.0	14.0	12.5	19.0	16.0	22.5	19.5	23.5	19.0	22.5	17.0
9	10.0	7.5	15.0	12.5	18.0	16.5	22.5	19.5	22.0	19.0	22.5	17.5
10	12.0	7.5	15.5	13.0	19.0	17.0	23.0	20.0	23.0	19.0	22.0	17.0
11	11.0	8.0	14.5	13.0	18.5	16.5	23.5	20.0	22.5	19.5	20.0	18.0
12	10.5	8.5	14.5	13.0	19.5	16.5	22.5	20.5	23.5	19.0	22.0	16.0
13	11.5	8.5	14.0	13.5	18.5	17.5	23.0	20.5	23.5	18.5	22.0	16.5
14	12.0	9.0	15.0	13.5	19.0	17.5	23.5	20.5	22.0	19.5	22.5	16.5
15	13.0	9.0	15.0	13.5	20.5	17.5	23.0	20.5	23.0	19.0	21.0	17.5
16	12.5	9.5	15.0	13.5	20.5	18.0	22.5	20.0	22.5	19.0	22.0	16.5
17	13.0	10.0	15.0	13.5	19.0	18.0	22.0	20.5	22.5	19.5	21.5	15.5
18	12.5	10.0	15.0	13.5	20.0	18.0	22.0	20.0	21.0	19.5	20.0	15.5
19	10.5	10.0	15.0	13.5	20.5	18.0	22.0	19.0	22.0	18.5	21.0	15.5
20	12.0	10.0	14.5	13.5	20.5	18.5	21.5	18.5	23.5	19.0	16.0	15.0
21	11.5	9.5	14.5	13.5	21.0	18.5	21.5	18.5	24.0	19.5	20.0	14.0
22	11.0	9.5	15.0	13.5	21.5	18.0	22.0	18.0	22.5	19.5	17.5	13.5
23	14.0	9.0	15.5	13.0	21.5	18.5	22.5	18.0	23.5	19.5	17.5	12.5
24	13.0	9.0	15.5	13.5	22.5	17.5	22.0	18.0	23.0	19.0	14.0	12.0
25	11.5	10.0	15.0	13.5	21.0	18.0	21.0	17.5	23.5	19.0	15.5	11.0
26	10.0	10.0	15.5	13.5	20.0	18.0	21.0	18.5	24.0	19.0	17.0	10.5
27	12.0	10.0	16.0	14.0	20.5	18.0	21.0	18.5	22.5	19.0	16.5	12.5
28	12.0	10.5	16.5	14.0	21.0	19.0	20.5	18.5	24.0	19.5	14.0	7.0
29	11.5	10.5	16.0	14.0	21.0	18.5	20.5	19.0	22.5	19.0	9.5	7.0
30	12.0	10.5	17.0	14.5	21.5	18.5	20.0	18.0	24.0	19.5	13.5	8.0
31	---	---	17.0	15.0	---	---	21.5	18.5	23.5	20.0	---	---
MONTH	14.0	5.5	17.0	10.5	22.5	15.0	23.5	17.5	24.0	18.5	23.5	7.0
YEAR	24.0	1.0										

06710385 BEAR CREEK ABOVE EVERGREEN, CO.

LOCATION.--Lat 39°37'58", long 105°19'59", in SE¼NE¼ Sec.9, T.5 S., R.71 W., Jefferson County, Hydrologic Unit 10190002, on right bank 0.6 mi upstream of Evergreen Lake dam at Evergreen, Co.

DRAINAGE AREA.--104 mi².

PERIOD OF RECORD.--August 1984 to September 1985.

GAGE.--Water-stage recorder. Elevation of gage 7,076 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Sept. 19, 1984, to Oct. 1, 1984, Nov. 13, 1984, to Apr. 3, 1985. Records good, except for estimated daily discharges, which are poor. Natural flow of stream affected by small diversions for irrigation. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 388 ft³/s, Aug. 26, 1984, gage height 3.80 ft Aug. 26, 1984; minimum daily, 13 ft³/s, Feb. 1-3, 1985.

EXTREMES FOR PERIOD AUGUST TO SEPTEMBER, 1984.--Maximum discharge, 388 ft³/s, Aug. 26, 1984, gage height 3.80 ft; minimum daily, 67 ft³/s, Sept. 30.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 190 ft³/s at 1600 July 19, gage height 2.85 ft; minimum daily, 13 ft³/s, Feb. 1-3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1											152	194
2											165	180
3											144	173
4											134	155
5											137	143
6											154	133
7											143	127
8											129	126
9											123	115
10											119	109
11											111	104
12											106	102
13											105	96
14											105	96
15											110	94
16											104	91
17											105	85
18											186	81
19											196	80
20											210	79
21											306	78
22											316	76
23											303	75
24											303	74
25											311	73
26											350	72
27											297	71
28											265	69
29											242	68
30											220	67
31											207	---
TOTAL											5858	3086
MEAN											189	103
MAX											350	194
MIN											104	67
AC-FT											11620	6120

06710385 BEAR CREEK ABOVE EVERGREEN, CO--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	77	38	23	13	15	22	130	102	68	134	59
2	66	75	37	23	13	15	24	131	97	67	137	51
3	80	77	36	23	13	15	26	136	101	65	119	41
4	140	72	35	23	14	15	26	138	124	62	110	56
5	122	70	35	21	14	15	24	140	110	62	102	47
6	106	72	39	21	15	16	24	134	110	59	97	39
7	98	68	40	21	15	16	25	126	133	57	91	36
8	93	66	40	21	15	16	27	120	144	57	86	35
9	91	64	40	21	15	17	27	124	144	57	82	34
10	88	60	40	21	15	17	28	116	141	61	81	34
11	82	68	40	20	15	17	32	112	122	57	77	36
12	80	65	39	19	15	18	32	103	111	54	75	48
13	83	56	37	19	15	18	33	103	109	56	68	37
14	87	52	36	19	15	19	36	94	109	58	67	34
15	78	50	35	19	15	20	41	93	106	56	65	34
16	81	54	33	18	15	21	45	90	104	54	60	33
17	86	52	32	17	15	23	43	105	103	54	59	31
18	80	49	31	17	15	21	45	110	102	74	60	29
19	80	47	30	17	15	20	43	105	96	121	57	32
20	80	45	30	17	15	20	33	105	90	102	54	30
21	80	47	29	17	15	21	33	105	88	117	51	31
22	80	48	29	15	15	22	33	105	83	90	56	32
23	80	48	28	15	15	23	29	111	80	102	49	32
24	80	48	28	15	15	20	31	109	79	96	47	30
25	81	47	27	15	15	21	34	112	84	96	44	32
26	81	45	27	15	15	21	32	121	117	92	41	31
27	81	43	27	15	15	20	37	119	94	93	42	30
28	78	42	25	15	15	20	54	123	82	89	41	32
29	75	41	25	15	---	26	73	122	77	100	41	32
30	77	39	25	15	---	24	116	114	73	96	41	34
31	78	---	25	14	---	23	---	105	---	99	38	---
TOTAL	2638	1687	1018	566	412	595	1108	3561	3115	2371	2172	1092
MEAN	85.1	56.2	32.8	18.3	14.7	19.2	36.9	115	104	76.5	70.1	36.4
MAX	140	77	40	23	15	26	116	140	144	121	137	59
MIN	66	39	25	14	13	15	22	90	73	54	38	29
AC-FT	5230	3350	2020	1120	817	1180	2200	7060	6180	4700	4310	2170

WTR YR 1985 TOTAL 20335 MEAN 55.7 MAX 144 MIN 13 AC-FT 40330

06710500 BEAR CREEK AT MORRISON, CO

LOCATION.--Lat 39°39'11", long 105°11'43", in SE¼SW¼ sec.35, T.4 S., R.70 W., Jefferson County, Hydrologic Unit 10190002, on left bank at Morrison, 180 ft upstream from bridge on State Highway 8 and 0.2 mi upstream from Mount Vernon Creek.

DRAINAGE AREA.--164 mi^2.

PERIOD OF RECORD.--Streamflow records, September 1887 to September 1891, May 1895 to December 1901, February 1902 (gage heights only), October 1919 to current year. No winter records for water years 1888-90, 1896, 1898, 1900. Monthly discharge only for some periods, published in WSP 1310. Published as "near Morrison" 1900-1902, as "at Starbuck" 1919-28, and as "at Idledale" 1929-34. Water-quality data available, October 1976 to September 1981.

REVISED RECORDS.--WSP 976: 1942. WSP 1310: 1888, 1890-91, 1898, 1935(M). WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,780.43 ft above National Geodetic Vertical Datum of 1929. See WSP 1710 or 1730 for history of changes prior to Oct. 1, 1934. Oct. 1, 1934, to Oct. 10, 1961, water-stage recorder at site 80 ft downstream at present datum.

REMARKS.--Estimated daily discharges: Nov. 28 to Jan. 7, Jan. 9 to Feb. 13, Feb. 26 to Mar. 1, Mar. 4-8, 12, 13 July 20-22, Aug. 2-4. Records good except for estimated daily discharges, which are poor. Small diversions for irrigation of about 1,000 acres above station. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--70 years (water years 1891, 1897, 1899, 1901, 1920-85), 53.9 ft^3/s; 39,050 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,600 ft^3/s, estimated, July 24, 1896; minimum daily, 0.8 ft^3/s, Nov. 26, 1939, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
July 19	2000	*317	*5.50	No other peak greater than base discharge.			

Minimum daily, 13 ft^3/s, Jan. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	114	38	29	14	18	28	232	114	68	132	56
2	76	110	38	28	14	20	33	220	108	67	136	58
3	92	112	32	28	14	20	41	205	112	65	114	43
4	235	107	30	30	14	16	42	202	142	60	105	54
5	195	105	30	32	14	18	33	198	126	57	97	51
6	151	107	35	32	14	20	35	190	121	56	90	39
7	134	100	35	31	14	22	34	180	134	53	82	36
8	121	97	35	30	15	22	40	164	146	52	78	36
9	117	91	38	30	16	23	40	166	151	51	75	34
10	112	81	37	28	15	28	41	155	155	54	75	35
11	105	91	36	26	15	33	44	146	132	50	68	36
12	100	84	34	24	15	30	47	136	114	47	71	53
13	100	81	32	26	16	30	45	142	108	49	64	39
14	114	80	29	27	17	30	49	128	105	54	61	35
15	103	70	30	26	18	31	52	125	103	51	61	33
16	105	73	32	26	20	31	54	119	100	53	56	36
17	108	76	32	26	20	30	54	144	98	51	54	30
18	112	65	32	28	19	31	56	149	100	70	57	29
19	107	64	32	28	19	30	57	146	91	145	54	32
20	110	61	31	25	20	28	45	149	85	119	52	31
21	105	58	30	20	20	30	48	149	84	123	48	36
22	102	72	30	21	21	30	48	142	80	90	51	35
23	103	66	32	22	22	24	41	144	73	98	47	38
24	100	67	31	22	22	30	44	138	72	91	43	34
25	102	65	31	22	20	33	53	140	78	94	40	34
26	105	62	32	22	20	36	50	146	128	86	40	34
27	110	37	33	20	18	30	50	142	90	92	37	33
28	110	40	33	20	18	27	77	144	77	84	38	36
29	110	39	32	18	---	26	102	136	71	94	39	36
30	112	39	32	16	---	25	202	126	68	97	36	36
31	114	---	30	13	---	25	---	117	---	100	33	---
TOTAL	3550	2314	1014	776	484	827	1585	4820	3166	2321	2034	1148
MEAN	115	77.1	32.7	25.0	17.3	26.7	52.8	155	106	74.9	65.6	38.3
MAX	235	114	38	32	22	36	202	232	155	145	136	58
MIN	76	37	29	13	14	16	28	117	68	47	33	29
AC-FT	7040	4590	2010	1540	960	1640	3140	9560	6280	4600	4030	2280

CAL YR 1984	TOTAL	34493	MEAN	94.2	MAX	490	MIN	15	AC-FT 68420
WTR YR 1985	TOTAL	24039	MEAN	65.9	MAX	235	MIN	13	AC-FT 47680

06711500 BEAR CREEK AT MOUTH, AT SHERIDAN, CO

LOCATION.--Lat 39°39'08", long 105°01'57", in NW¼NW¼ sec.5, T.5 S., R.68 W., Arapahoe County, Hydrologic Unit 10190002, on left bank just downstream from bridge on road to Fort Logan Mental Health Center, at Highway Department maintenance building at northwest city limits of Sheridan, 1.3 mi upstream from mouth, and 2.1 mi west of city hall in Englewood.

DRAINAGE AREA.--260 mi^2.

PERIOD OF RECORD.--April to November 1914, March 1927 to current year. Monthly discharge only prior to October 1933, published in WSP 1310. Published as "at Sheridan Junction" 1934-41.

REVISED RECORDS.--WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 5,295 ft, from topographic map. See WSP 1710 or 1730 for history of changes prior to Oct. 9, 1953. Oct. 9, 1953, to Aug. 6, 1969, water-stage recorder at present site at datum 1.0 ft, higher.

REMARKS.--Estimated daily discharges: Jan. 13, 14, 16, 17, 20-24, Jan. 26 to Feb. 11, Apr. 28-30. Records good except for estimated daily discharges, which are fair. Flow regulated by Bear Creek Lake since July 1979. Storage and diversions above station for irrigation of about 12,000 acres. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--58 years, 42.7 ft^3/s; 30,940 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,150 ft^3/s, May 7, 1969, gage height, 10.5 ft, present datum, from flood marks, from rating curve extended above 3,400 ft^3/s; no flow, July 13, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 760 ft^3/s at 1600 Oct. 4, gage height, 4.80 ft; minimum daily, 11 ft^3/s, many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	127	66	54	24	38	48	435	138	22	148	26
2	80	119	68	42	20	39	48	395	132	20	169	65
3	87	138	61	41	18	40	62	330	136	20	147	45
4	453	147	56	48	16	37	61	296	159	15	127	37
5	430	150	58	48	15	34	48	282	152	14	115	38
6	203	164	54	49	14	37	44	279	132	12	103	37
7	159	162	59	48	13	39	42	279	127	11	92	31
8	136	143	72	50	13	39	43	263	136	12	85	28
9	141	119	77	50	13	41	53	238	145	15	79	26
10	147	98	77	44	13	44	56	220	147	15	77	18
11	127	89	72	43	40	61	58	206	134	16	71	17
12	115	90	72	43	59	63	56	203	117	15	69	20
13	105	85	71	42	35	69	58	226	107	15	59	24
14	130	75	62	40	11	59	58	201	98	20	54	24
15	130	66	61	39	11	54	59	179	92	120	53	27
16	121	56	66	38	14	55	63	162	89	41	47	26
17	123	59	62	39	31	50	63	179	87	29	42	23
18	134	59	51	39	34	50	63	198	89	33	40	19
19	109	69	56	39	34	47	68	179	89	129	41	15
20	111	80	59	37	35	39	63	182	85	192	41	14
21	123	85	59	37	37	39	58	179	72	138	37	15
22	136	98	54	37	36	39	63	177	68	121	42	18
23	152	101	55	38	44	34	61	179	63	117	42	18
24	147	103	56	37	36	35	54	172	62	111	35	21
25	141	103	53	36	39	42	80	167	73	109	32	23
26	141	99	54	36	41	47	80	174	109	101	28	22
27	152	79	58	35	36	41	68	169	111	105	26	22
28	150	69	62	34	37	36	115	169	71	98	27	26
29	136	87	61	32	---	43	180	164	39	107	29	36
30	130	74	55	31	---	44	300	155	27	113	26	30
31	132	---	54	26	---	49	---	138	---	121	30	---
TOTAL	4666	2993	1901	1252	769	1384	2173	6775	3086	2007	2013	791
MEAN	151	99.8	61.3	40.4	27.5	44.6	72.4	219	103	64.7	64.9	26.4
MAX	453	164	77	54	59	69	300	435	159	192	169	65
MIN	80	56	51	26	11	34	42	138	27	11	26	14
AC-FT	9260	5940	3770	2480	1530	2750	4310	13440	6120	3980	3990	1570

CAL YR 1984 TOTAL 47826 MEAN 131 MAX 640 MIN 27 AC-FT 94860
WTR YR 1985 TOTAL 29810 MEAN 81.7 MAX 453 MIN 11 AC-FT 59130

06711565 SOUTH PLATTE RIVER AT ENGLEWOOD, CO

LOCATION.--Lat 39°39'54", long 105°00'13", in NW¼NE¼ sec.33, T.4 S., R.68 W., Arapahoe County, Hydrologic Unit 10190002, on right bank, 0.3 mi downstream from Dartmouth Ave bridge at Englewood, 1.4 mi downstream from Bear Creek.

DRAINAGE AREA.--Not determined.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,250 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 20-24, Jan. 27 to Feb. 11. Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by transmountain diversions, storage and flood control reservoirs, power developments, diversions for irrigation and municipal use, and return flow from irrigated areas. Flow regulated by Chatfield Dam since May 29, 1975 (station 06709600), and Bear Creek Dam since July 1979.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,090 ft³/s, Aug. 20, 1984, gage height, 5.25 ft; minimum daily, 28 ft³/s, Feb. 11, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,360 ft³/s at 1800 Oct. 4, gage height, 4.72 ft; minimum daily, 74 ft³/s, Sept. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	307	1080	226	399	110	95	117	2170	1180	464	1020	367
2	423	1060	226	313	110	128	110	2630	1170	427	923	363
3	511	1230	221	147	110	132	150	2760	1260	399	1110	306
4	2000	1220	216	180	110	150	289	2710	1450	331	1170	223
5	1730	1220	303	256	110	167	379	2570	1570	290	964	284
6	1180	1210	252	260	110	172	375	2430	1270	404	739	296
7	1110	1210	203	301	110	175	375	2300	818	476	663	168
8	1090	1190	216	334	150	221	375	1980	763	570	534	163
9	1070	1180	221	210	300	284	381	1710	1120	578	432	154
10	1050	1160	263	226	300	289	339	1340	1450	570	525	102
11	1030	1020	194	241	220	236	357	1340	1530	563	471	104
12	1010	612	397	404	175	160	463	1430	1620	563	400	121
13	894	506	399	399	142	175	577	1710	1490	584	393	107
14	949	388	462	312	101	146	570	1890	1290	623	427	98
15	999	297	576	181	107	159	533	1760	1080	956	424	91
16	1150	279	456	175	154	295	485	1450	951	941	490	101
17	1280	404	276	171	168	296	477	1450	960	899	533	82
18	1370	561	147	171	124	231	512	1540	1010	864	452	83
19	1220	593	139	171	132	143	548	1670	1110	1020	340	74
20	1060	736	146	171	210	146	548	1760	1200	890	328	76
21	1050	661	146	171	235	180	540	1690	1010	441	322	85
22	981	601	159	171	257	139	592	1590	685	335	351	114
23	932	600	470	171	296	180	282	1530	479	328	399	98
24	931	602	387	171	262	180	301	1590	292	334	375	101
25	941	600	296	163	212	184	710	1650	369	494	354	104
26	950	534	252	163	136	184	786	1660	806	2000	291	104
27	960	298	142	163	98	180	902	1540	1070	952	236	95
28	941	448	149	150	90	159	1040	1300	1170	941	235	124
29	1020	252	146	140	---	139	923	1240	711	980	241	206
30	1170	226	216	110	---	124	1510	1180	601	1130	285	140
31	1230	---	397	110	---	117	---	1160	---	1190	344	---
TOTAL	32539	21978	8299	6705	4639	5566	15546	54730	31485	21537	15771	4534
MEAN	1050	733	268	216	166	180	518	1765	1050	695	509	151
MAX	2000	1230	576	404	300	296	1510	2760	1620	2000	1170	367
MIN	307	226	139	110	90	95	110	1160	292	290	235	74
AC-FT	64540	43590	16460	13300	9200	11040	30840	108600	62450	42720	31280	8990

CAL YR 1984 TOTAL 303600 MEAN 830 MAX 3910 MIN 79 AC-FT 602200
WTR YR 1985 TOTAL 223329 MEAN 612 MAX 2760 MIN 74 AC-FT 443000

06711565 SOUTH PLATTE RIVER AT ENGLEWOOD, CO--Continued

PERIOD OF RECORD.--March 1985 to September 1985.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1985 to September 1985.
pH: March 1985 to September 1985.
WATER TEMPERATURES: March 1985 to September 1985.
DISSOLVED OXYGEN: March 1985 to September 1985.

INSTRUMENTATION.--Water quality monitor since March 1985.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 852 microsiemens Mar. 30, 1985; minimum, 291 microsiemens May 30, 1985.
pH: Maximum, 9.4 units Aug. 15, 1985, minimum, 6.8 units Sept. 27, 1985.
WATER TEMPERATURES: Maximum, 26.0°C, Sept. 19, 1985; minimum, 2.0°C, Mar. 8, 1985.
DISSOLVED OXYGEN: Maximum, 17.4 mg/L Mar. 14, 1985; minimum, 3.5 mg/L July 20, 1985.

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25 DEG. C, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						---	679	394	319	405	378	538
2						---	669	332	313	413	391	533
3						---	613	323	317	418	382	532
4						---	530	331	311	416	384	532
5						---	461	---	300	411	396	530
6						---	444	---	308	418	415	526
7						507	443	---	339	422	424	546
8						487	443	---	353	420	436	560
9						448	461	---	343	419	456	562
10						447	485	---	332	419	459	628
11						464	516	---	334	418	461	700
12						531	508	---	337	415	465	678
13						567	504	---	343	411	466	676
14						546	499	---	348	419	485	688
15						536	493	---	360	413	490	689
16						456	470	---	375	412	497	680
17						447	485	---	388	415	501	721
18						461	534	---	401	420	506	727
19						540	528	---	396	422	514	737
20						521	533	325	392	414	521	758
21						520	500	319	403	409	525	740
22						691	496	323	417	408	527	703
23						692	517	318	435	407	531	695
24						664	549	312	439	405	532	719
25						628	526	307	422	405	534	706
26						608	446	305	391	404	539	718
27						572	413	302	403	405	543	738
28						563	432	304	401	401	558	696
29						692	485	306	401	400	561	652
30						767	461	303	402	395	557	672
31						703	---	313	---	377	545	---
MEAN						562	504	320	367	411	483	653

WTR YR 1985 MEAN 480 MAX 767 MIN 300

06711565 SOUTH PLATTE RIVER AT ENGLEWOOD, CO.--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1											---	---
2											---	---
3											---	---
4											---	---
5											---	---
6											---	---
7											9.0	8.3
8											9.0	7.8
9											9.0	7.9
10											9.0	7.8
11											8.9	7.8
12											8.8	7.7
13											8.8	7.7
14											8.8	7.7
15											8.8	7.7
16											8.8	7.8
17											8.8	7.8
18											8.8	7.9
19											8.7	7.7
20											8.8	7.8
21											8.7	7.9
22											8.4	7.8
23											8.3	7.7
24											8.4	7.8
25											8.6	7.8
26											8.6	7.8
27											8.8	7.9
28											8.6	8.0
29											8.2	7.9
30											8.3	7.9
31											8.3	8.0
MONTH											9.0	7.7

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.5	8.0	7.6	7.1	8.1	7.6	8.1	8.1	8.0	7.8	8.3	8.2
2	8.5	8.0	8.1	7.6	8.0	7.6	8.1	8.0	7.9	7.8	8.4	8.2
3	8.6	8.1	8.1	8.0	8.0	7.6	8.1	8.0	8.1	7.9	8.4	8.3
4	8.4	8.2	8.5	8.5	7.8	7.6	8.1	8.0	8.1	7.9	8.4	8.3
5	8.1	7.7	---	---	8.2	7.5	8.1	7.9	8.4	7.9	8.5	8.3
6	8.0	7.7	---	---	7.9	7.5	8.6	7.9	8.1	7.9	8.5	8.3
7	8.0	7.8	---	---	7.9	7.5	8.1	7.9	8.2	7.9	8.5	8.4
8	7.9	7.8	---	---	7.9	7.5	8.0	7.9	8.2	8.0	8.6	8.4
9	8.0	7.8	---	---	7.8	7.5	8.1	7.9	8.2	7.9	8.7	8.4
10	8.0	7.9	---	---	7.8	7.6	8.3	7.9	8.3	8.0	9.0	8.5
11	8.0	7.9	---	---	8.0	7.6	8.0	7.9	8.2	7.9	---	---
12	8.1	8.1	---	---	8.0	7.7	8.0	7.9	8.7	7.9	---	---
13	8.2	8.1	---	---	8.1	7.7	7.9	7.8	8.4	7.8	---	---
14	8.3	8.2	---	---	8.0	7.7	8.1	7.9	9.1	8.1	---	---
15	8.3	8.2	---	---	8.0	7.7	8.2	7.9	9.4	8.4	---	---
16	8.4	8.3	---	---	7.9	7.7	8.0	7.9	9.3	8.3	---	---
17	8.5	8.4	---	---	7.9	7.7	7.9	7.8	9.0	8.3	---	---
18	8.4	8.3	---	---	7.9	7.7	8.2	7.8	8.5	8.2	---	---
19	8.4	8.3	---	---	7.9	7.8	7.9	7.8	8.7	8.1	---	---
20	8.4	8.3	8.1	8.0	8.0	7.8	8.0	7.9	9.0	8.2	---	---
21	8.4	8.2	8.2	7.9	8.0	7.9	8.0	7.9	9.0	8.2	---	---
22	8.2	8.1	8.2	7.9	8.0	7.9	8.0	7.9	8.6	8.2	---	---
23	8.0	7.8	8.4	7.9	8.0	7.9	8.1	7.9	8.9	8.1	---	---
24	7.8	7.7	8.3	7.9	7.9	7.7	8.1	8.0	8.8	8.2	---	---
25	7.8	7.7	8.2	7.9	8.2	7.8	8.1	8.0	8.8	8.1	---	---
26	7.8	7.7	8.3	7.8	8.2	8.1	8.2	8.1	8.7	8.2	---	---
27	7.7	7.5	8.3	7.8	8.2	8.1	8.1	7.9	8.3	8.2	8.1	6.8
28	7.5	7.4	8.3	7.8	8.2	8.1	8.1	8.0	7.8	7.3	8.7	7.1
29	7.4	7.3	8.2	7.8	8.1	8.1	8.1	8.0	7.9	7.3	8.3	7.8
30	7.4	7.3	8.3	7.7	8.2	8.1	8.1	8.0	8.3	7.9	8.7	8.0
31	---	---	8.0	7.6	---	---	8.0	7.8	8.4	8.1	---	---
MONTH	8.6	7.3	8.5	7.1	8.2	7.5	8.6	7.8	9.4	7.3	9.0	6.8
YEAR	9.4	6.8										

06711565 SOUTH PLATTE RIVER AT ENGLEWOOD, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1											---	---
2											---	---
3											---	---
4											---	---
5											---	---
6											---	---
7											9.0	5.0
8											9.0	2.0
9											9.0	3.0
10											8.5	3.5
11											7.0	3.5
12											9.5	4.0
13											10.0	2.5
14											11.0	2.5
15											10.5	3.5
16											10.0	4.0
17											11.5	3.5
18											11.5	4.0
19											9.5	6.0
20											12.0	5.0
21											12.5	4.5
22											10.0	4.5
23											12.0	6.0
24											14.0	6.5
25											13.5	6.5
26											13.0	7.5
27											11.5	7.0
28											11.0	6.5
29											7.5	5.0
30											11.5	4.0
31											11.0	5.5
MONTH											14.0	2.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	14.0	6.5	13.5	---	18.0	14.0	21.0	17.5	21.0	18.5	23.0	19.5
2	15.5	7.5	13.5	11.0	17.5	14.0	23.0	16.5	21.0	18.0	22.5	19.0
3	15.0	8.0	13.0	11.0	18.0	14.5	23.5	17.5	22.5	18.5	23.0	18.5
4	10.0	7.5	12.0	---	16.5	14.0	23.5	17.5	23.0	18.5	24.0	19.5
5	11.5	6.0	---	---	18.5	14.5	24.0	17.0	22.5	19.0	25.0	19.0
6	8.0	6.0	---	---	19.5	15.0	23.5	18.0	23.0	18.5	24.0	19.5
7	13.0	6.5	---	---	21.0	15.0	24.0	18.0	22.5	18.5	23.0	19.0
8	11.5	6.0	---	---	20.5	15.5	24.0	19.0	24.0	17.5	24.0	18.5
9	11.5	7.0	---	---	18.5	15.5	23.0	19.0	22.0	18.0	23.0	19.5
10	15.0	7.0	---	---	18.0	16.0	22.5	18.5	24.0	17.0	24.0	19.5
11	14.5	8.0	---	---	19.0	16.0	23.5	18.5	23.5	18.5	23.0	20.5
12	12.5	9.0	---	---	19.5	16.0	22.5	19.5	24.5	18.0	24.0	18.5
13	14.5	9.0	---	---	20.0	16.5	23.5	19.5	23.5	17.0	25.0	19.0
14	15.0	9.0	---	---	20.5	16.5	23.5	19.0	21.0	17.5	26.0	20.0
15	16.0	9.5	---	---	22.0	16.5	23.0	20.0	23.0	17.0	24.5	21.5
16	16.0	10.0	---	---	22.0	17.0	23.5	19.5	22.0	17.0	25.5	19.5
17	16.0	10.5	---	---	20.0	17.0	23.0	19.5	22.0	17.5	26.0	20.0
18	16.0	10.5	---	---	21.0	17.0	22.0	19.5	20.5	18.0	24.5	20.5
19	12.0	10.5	---	---	21.5	17.0	20.5	17.5	21.5	16.5	26.0	20.0
20	14.0	9.5	14.0	12.5	22.0	18.0	20.5	18.5	23.0	17.5	24.0	19.0
21	13.5	10.0	14.0	---	22.5	18.0	21.0	18.0	24.0	18.0	23.5	17.5
22	12.0	10.0	15.0	12.5	23.0	17.0	21.5	17.5	22.5	17.5	22.0	16.5
23	16.5	9.0	16.0	12.0	22.5	17.0	22.5	---	24.0	18.0	20.0	14.5
24	15.5	9.0	16.5	12.5	23.0	17.0	22.0	17.5	23.5	17.5	18.5	15.5
25	11.0	8.5	15.0	---	21.0	18.0	21.5	17.5	24.0	17.5	18.5	15.0
26	9.5	8.5	16.0	13.0	19.0	16.5	21.0	17.5	24.5	18.0	17.0	14.5
27	13.5	9.0	17.0	13.0	21.0	16.0	22.5	18.0	20.5	18.0	18.5	16.0
28	14.0	10.0	17.5	13.0	22.0	18.0	20.5	18.0	23.0	17.5	17.5	10.5
29	12.0	10.5	17.0	13.5	21.5	17.5	21.5	18.5	22.5	17.5	10.5	9.0
30	13.5	10.0	18.0	13.5	22.0	18.0	20.0	18.0	24.0	18.0	13.5	8.5
31	---	---	17.0	14.0	---	---	22.5	18.0	23.0	19.0	---	---
MONTH	16.5	6.0	18.0	11.0	23.0	14.0	24.0	16.5	24.5	16.5	26.0	8.5
YEAR	26.0	2.0										

06711565 SOUTH PLATTE RIVER AT ENGLEWOOD, CO--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1											---	---
2											---	---
3											---	---
4											---	---
5											---	---
6											---	---
7											14.2	9.0
8											14.7	9.7
9											13.4	10.0
10											13.9	10.3
11											14.6	10.4
12											16.7	10.2
13											16.9	11.0
14											17.4	6.0
15											12.2	6.3
16											10.1	7.0
17											10.3	6.9
18											10.8	6.1
19											12.0	6.3
20											12.7	6.5
21											12.0	6.3
22											12.1	6.5
23											11.1	6.6
24											11.5	6.5
25											11.1	6.6
26											10.7	6.9
27											11.7	7.0
28											11.7	7.0
29											10.6	7.1
30											11.8	7.1
31											12.2	7.3
MONTH											17.4	6.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	12.8	6.6	8.7	8.3	8.2	7.4	8.9	4.1	---	---	6.2	3.6
2	13.2	6.6	8.7	8.4	8.2	7.3	10.5	4.2	---	---	5.3	3.3
3	12.6	6.9	8.7	8.5	8.1	7.0	11.1	4.2	---	---	8.8	3.0
4	10.2	7.9	8.8	8.7	8.2	7.6	11.0	3.9	---	---	6.9	4.0
5	10.0	8.2	---	---	8.4	7.5	13.4	4.1	---	---	7.9	4.1
6	10.2	8.5	---	---	8.3	7.5	12.2	5.1	---	---	7.5	4.8
7	10.7	8.4	---	---	8.3	7.1	11.5	5.7	---	---	7.4	4.1
8	10.8	8.3	---	---	8.1	7.2	10.8	5.5	---	---	9.4	3.9
9	10.4	8.3	---	---	8.2	7.3	9.6	5.6	---	---	9.1	4.3
10	10.6	7.6	---	---	8.0	7.3	10.4	5.4	---	---	10.3	5.8
11	10.7	7.9	---	---	8.0	7.5	10.1	5.5	---	---	8.7	5.3
12	9.9	8.3	---	---	7.9	7.2	9.2	5.3	---	---	10.2	5.1
13	9.6	8.3	---	---	7.6	7.0	8.9	4.8	---	---	11.0	4.7
14	9.6	8.2	---	---	7.4	6.8	8.9	4.6	---	---	12.1	4.5
15	9.6	8.1	---	---	7.3	6.4	9.2	4.7	9.2	5.7	9.7	4.4
16	9.9	8.1	---	---	7.2	6.4	8.0	5.3	9.0	6.0	12.1	4.8
17	9.9	8.1	---	---	7.5	6.6	8.7	5.8	9.3	6.8	13.0	5.8
18	9.7	7.9	---	---	7.4	6.5	9.5	5.2	8.6	6.8	11.4	6.1
19	8.9	8.1	---	---	7.1	6.2	10.9	3.5	8.5	6.4	12.0	6.3
20	9.6	8.2	8.0	7.9	6.8	6.1	---	---	9.0	6.4	11.9	6.9
21	9.7	8.1	8.3	8.0	6.8	5.9	---	---	8.9	6.3	14.3	6.9
22	8.5	7.9	8.3	7.9	6.7	5.5	---	---	8.9	6.4	11.5	7.4
23	9.9	7.3	8.3	7.9	6.8	4.8	---	---	8.2	6.4	12.6	8.2
24	10.2	7.7	8.2	7.8	6.5	4.2	---	---	8.3	6.8	12.8	7.6
25	8.7	8.2	8.2	7.8	8.2	4.6	---	---	8.4	6.6	13.3	8.8
26	8.9	8.6	8.2	7.8	7.0	3.8	4.9	4.4	8.0	6.3	9.8	7.6
27	9.0	8.2	8.3	7.8	8.7	4.0	6.5	4.7	7.5	7.0	13.8	6.9
28	8.7	8.2	8.2	7.6	8.6	5.2	7.2	5.0	5.2	3.6	9.7	6.6
29	8.6	7.7	8.2	7.5	9.0	5.0	7.5	5.0	5.4	3.7	11.0	9.6
30	8.5	8.1	8.2	7.3	8.0	4.8	7.2	5.1	4.9	3.8	12.4	9.6
31	---	---	8.1	7.5	---	---	7.5	5.0	4.9	3.6	---	---
MONTH	13.2	6.6	8.8	7.3	9.0	3.8	13.4	3.5	9.3	3.6	14.3	3.0
YEAR	17.4	3.6										

06712000 CHERRY CREEK NEAR FRANKTOWN, CO

LOCATION.--Lat 39°21'21", long 104°45'46", in NE¼ sec.15, T.8 S., R.66 W., Douglas County, Hydrologic Unit 10190003, on right bank 1.5 mi upstream from Russellville Gulch and 2.5 mi south of Franktown.

DRAINAGE AREA.--169 mi^2.

PERIOD OF RECORD.--November 1939 to current year.

REVISED RECORDS.--WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 6,170 ft, from topographic map. See WSP 1730 for history of changes prior to Oct. 1, 1953.

REMARKS.--Estimated daily discharges: Nov. 29, 30 , Jan. 31 to Feb. 3. Records good except for estimated daily discharges, and winter period, which are poor. Many small diversions above station for irrigation of about 800 acres. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--45 years (water years 1941-85), 9.77 ft^3/s; 7,080 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,170 ft^3/s, Aug. 5, 1945, gage height, 4.91 ft, site and datum then in use, by float measurement; minimum daily, 0.20 ft^3/s, July 13, 1946, Sept. 30, Oct. 1, 1950.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 3, 1933, caused by Castlewood Dam failure, exceeded all other observed floods at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 17	1500	*985	*5.85	July 23	2400	350	4.72

Minimum daily discharge, 3.9 ft^3/s, July 12, 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	43	27	19	13	30	31	69	16	7.4	14	5.6
2	16	41	27	22	12	37	37	48	16	7.2	40	7.0
3	16	38	15	23	12	35	43	41	19	7.0	22	6.4
4	23	36	21	27	12	20	43	32	19	6.8	18	6.7
5	41	36	17	26	11	25	43	29	18	6.4	14	6.9
6	34	34	17	24	9.9	39	42	29	16	6.0	12	6.7
7	26	33	22	20	8.5	49	37	28	14	5.6	9.9	6.6
8	23	32	30	25	8.5	49	33	28	12	5.1	8.9	6.7
9	20	32	30	17	8.9	45	31	27	12	4.7	8.0	6.8
10	20	30	32	19	9.9	46	30	26	12	4.6	7.1	6.8
11	19	32	37	18	10	46	30	22	12	4.3	6.4	8.6
12	19	31	37	17	10	43	30	22	12	3.9	5.9	12
13	18	32	28	20	12	36	29	34	11	3.9	5.3	12
14	23	31	18	16	16	36	28	34	11	4.3	9.0	11
15	27	28	26	17	21	34	26	29	10	11	7.1	10
16	12	28	28	16	23	36	25	28	9.9	8.3	6.2	9.9
17	16	28	22	16	25	32	22	131	9.6	5.6	5.6	9.4
18	39	26	22	18	25	30	20	37	11	9.0	5.5	8.9
19	42	26	26	18	25	29	20	28	11	5.3	5.5	8.7
20	37	27	28	15	28	28	22	31	10	7.4	5.4	8.9
21	35	27	22	14	32	28	21	34	9.5	14	5.5	9.2
22	33	30	18	14	32	28	22	43	9.2	25	5.6	9.4
23	34	27	22	14	20	25	22	36	8.9	31	5.7	9.6
24	34	28	19	15	19	24	21	27	8.6	64	5.5	10
25	35	29	17	14	29	23	24	23	8.0	23	5.5	10
26	38	27	23	15	24	24	30	22	8.8	17	5.4	10
27	42	23	27	15	21	24	30	21	9.9	14	5.4	11
28	41	30	34	14	26	24	28	20	9.4	13	5.3	11
29	39	29	33	14	---	23	30	18	8.7	12	5.4	11
30	42	28	27	13	---	25	80	16	8.0	13	5.4	12
31	42	---	28	13	---	26	---	15	---	14	5.3	---
TOTAL	903	922	780	548	503.7	999	930	1028	350.5	363.8	275.8	268.8
MEAN	29.1	30.7	25.2	17.7	18.0	32.2	31.0	33.2	11.7	11.7	8.90	8.96
MAX	42	43	37	27	32	49	80	131	19	64	40	12
MIN	12	23	15	13	8.5	20	20	15	8.0	3.9	5.3	5.6
AC-FT	1790	1830	1550	1090	999	1980	1840	2040	695	722	547	533

CAL YR 1984 TOTAL 13217.6 MEAN 36.1 MAX 535 MIN 9.0 AC-FT 26220
WTR YR 1985 TOTAL 7872.6 MEAN 21.6 MAX 131 MIN 3.9 AC-FT 15620

06712990 CHERRY CREEK LAKE NEAR DENVER, CO

LOCATION.--Lat 39°09'03", long 104°51'13", in NW¼NE¼ sec.2, T.55 S., R.67 W., Arapahoe County, Hydrologic Unit 10190003, 0.8 mi southwest from intersection of Interstate Highway 225 and Parker Road, 0.2 mi from right end of dam, 1.6 mi northwest of intersection of Parker and Airline Roads, and 11.5 mi upstream from mouth.

DRAINAGE AREA.--385 mi².

PERIOD OF RECORD.--Contents, October 1960 to current year. Water-quality data available, October 1976 to September 1981.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army, Corps of Engineers); gage readings have been reduced to elevations above National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by earthfill dam. Storage began May 15, 1957; dam completed in June 1950. Capacity, 92,820 acre-ft, at elevation 5,598.00 ft, crest of spillway. No dead storage. Figures given represent total contents. Reservoir is for flood control and recreation.

COOPERATION.--Records provided by U.S. Army, Corps of Engineers. Capacity revised on basis of new capacity table dated January 1975.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 31,120 acre-ft, June 3, 1973, elevation, 5,565.82 ft; minimum, 9,980 acre-ft, Nov. 23, 24, 1978, elevation, 5,545.90 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 16,370 acre-ft, Mar. 5, elevation, 5,553.49 ft; minimum, 12,890 acre-ft, Jan. 15, elevation, 5,549,60 ft.

MONTHEND ELEVATION AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	5,550.29	13,480	-
Oct. 31	5,551.87	14,870	+1,390
Nov. 30	5,551.84	14,840	-30
Dec. 31	5,552.40	14,450	-390
CAL YR 1984	-	-	-1,000
Jan. 31	5,550.74	13,870	-580
Feb. 28	5,553.04	15,940	+2,070
Mar. 31	5,551.52	14,560	-1,380
Apr. 30	5,551.17	14,240	-320
May 31	5,552.84	15,760	+1,520
June 30	5,549.91	13,150	-2,610
July 31	5,550.99	14,080	+930
Aug. 31	5,551.09	14,170	+90
Sept. 30	5,551.72	14,730	+560
WTR YR 1985	-	-	+1,250

06713000 CHERRY CREEK BELOW CHERRY CREEK LAKE, CO

LOCATION.--Lat 39°39'12", long 104°51'41", in SW¼SW¼ sec.35, T.4 S., R.67 W., Arapahoe County, Hydrologic Unit 10190003, on right bank 2,000 ft downstream from Cherry Creek Dam, 2.2 mi southeast of Sullivan, 9 mi southeast of Civic Center in Denver, and 11 mi upstream from mouth.

DRAINAGE AREA.--385 mi^2.

PERIOD OF RECORD.--June 1950 to current year.

REVISED RECORDS.--WSP 1730: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 5,490.51 ft, (Corps of Engineers bench mark).

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Cherry Creek Lake (see elsewhere in this report). Diversions above station for irrigation of about 1,800 acres. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--35 years, 6.14 ft^3/s; 4,450 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,440 ft^3/s July 31, 1956, gage height, 6.07 ft; no flow most of time since May 1957.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood known, 34,000 ft^3/s Aug. 3, 1933, by slope-area measurement near present site (Castlewood Dam failure).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 302 ft^3/s at 1530 June 3, gage height, 4.56 ft; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	242	.00	92	.00	.00	110	.00	60	.00	.48	.68
2	65	248	.00	90	.00	.00	68	.00	32	.00	.48	.55
3	.28	268	.00	92	.00	.00	.00	.00	120	.00	.48	.62
4	.47	278	.00	92	.00	.00	18	.00	285	.00	.48	.41
5	.21	119	.00	97	.00	78	75	.00	292	.00	.42	.36
6	.15	.00	.00	97	.00	81	101	.00	296	.00	.41	.35
7	.15	.00	.00	99	.00	81	101	.00	176	.00	.41	.35
8	.15	.00	.00	101	.00	57	104	.00	138	.00	.41	.35
9	.06	.00	.00	101	.00	43	104	.00	138	4.8	.41	.35
10	.02	.00	.00	101	.00	43	105	.00	104	.00	.41	.35
11	.02	.00	.00	103	.00	73	106	.00	.00	.00	.41	.41
12	.02	.00	.00	104	.00	97	106	.02	.00	.00	.41	.28
13	.00	.00	.00	105	.00	94	108	.00	.00	.00	.48	.28
14	.05	.00	.00	40	.00	94	108	.00	.00	.52	.48	.28
15	.05	.00	.00	.00	.00	96	111	.00	.00	.33	.45	.31
16	.15	.00	.00	.00	.00	97	111	.00	.00	.00	.41	.28
17	.05	.00	47	.00	.00	97	112	34	.00	.00	.48	.28
18	.06	.00	75	.00	.00	94	67	55	.00	.39	.48	.35
19	.02	.00	77	.00	.00	97	.00	55	.00	1.2	.48	.28
20	.02	.00	79	.00	.00	94	.00	55	.00	1.7	.48	.28
21	.00	.00	79	.00	.00	97	.00	55	.00	.00	.48	.35
22	.00	.00	80	.00	.00	101	.00	55	.00	.00	.48	.41
23	.00	.00	81	.00	.00	101	.00	55	.00	.00	.55	.35
24	.00	.00	83	.00	.00	102	.00	57	.00	.00	.55	.35
25	.00	.00	82	.00	.00	104	.28	57	.00	.00	.54	.40
26	68	.00	84	.00	.00	104	.00	54	.00	.00	.55	.28
27	101	.00	86	.00	.00	106	.00	59	.00	.00	.55	.28
28	101	.00	88	.00	.00	106	.00	59	.00	.00	.55	.35
29	101	.00	89	.00	---	106	.21	59	.00	.00	.62	.41
30	184	.00	90	.00	---	108	.28	60	.00	.00	.68	.28
31	243	---	91	.00	---	108	---	60	---	.00	.68	---
TOTAL	918.93	1155.00	1211.00	1314.00	.00	2459.00	1615.77	829.02	1641.00	8.94	15.18	10.86
MEAN	29.6	38.5	39.1	42.4	.00	79.3	53.9	26.7	54.7	.29	.49	.36
MAX	243	278	91	105	.00	108	112	60	296	4.8	.68	.68
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.41	.28
AC-FT	1820	2290	2400	2610	.00	4880	3200	1640	3250	18	30	22

CAL YR 1984 TOTAL 17499.67 MEAN 47.8 MAX 278 MIN .00 AC-FT 34710
WTR YR 1985 TOTAL 11178.70 MEAN 30.6 MAX 296 MIN .00 AC-FT 22170

06713300 CHERRY CREEK AT GLENDALE, CO.

LOCATION.--Lat 39°42'22", long 104°56'13", in SW¼NW¼ sec.18, T.4 S., R.67 W., Denver County, Hydrologic Unit 10190003, on left bank 900 ft upstream from Colorado Blvd. on Cherry Creek South Drive and Ash Ct. in the City of Glendale, and 5 miles downstream from Cherry Creek Reservoir.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--January to September 1985.

GAGE.--Water-stage recorder. Elevation of gage is 5,320 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Esdtimated daily discharges: Jan. 1-16 and Jan. 31 to Feb. 11. Records good except for estimated daily discharges, which are poor. Flow regulated Cherry Creek Lake (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period January to September, not determined; minimum daily, 5.7 ft^3/s, Feb. 10-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				82	8.0	6.3	98	19	62	20	18	45
2				82	8.0	6.8	80	11	86	14	18	67
3				82	7.6	7.8	12	11	126	14	17	57
4				82	7.2	7.1	16	11	329	14	17	16
5				86	7.0	28	68	11	271	14	16	13
6				88	6.7	74	96	11	282	16	16	13
7				90	6.4	76	94	12	197	15	15	12
8				92	6.2	60	95	11	75	14	14	13
9				92	6.0	42	96	11	83	15	15	13
10				92	5.7	42	94	11	52	13	15	13
11				94	5.7	61	93	11	8.7	13	16	31
12				96	7.3	97	93	32	9.4	13	16	29
13				90	7.2	97	95	70	10	15	15	13
14				60	6.5	91	96	10	11	16	15	12
15				40	6.4	88	98	9.9	14	24	14	13
16				25	6.3	86	96	12	16	11	15	13
17				16	6.3	87	96	61	13	12	14	12
18				11	6.3	91	78	132	13	36	14	13
19				10	6.0	92	15	105	13	311	14	13
20				9.9	5.9	93	12	58	14	241	14	13
21				9.6	5.9	99	17	60	13	18	14	14
22				9.2	6.8	97	74	60	13	17	14	50
23				9.6	13	96	12	60	13	62	13	28
24				9.9	8.8	97	12	62	13	36	13	14
25				9.3	7.7	96	147	62	39	24	13	15
26				8.6	9.4	96	60	61	59	21	12	14
27				8.5	7.2	96	13	67	13	20	13	14
28				8.3	6.8	95	11	60	12	19	14	19
29				8.0	---	120	65	61	15	28	12	55
30				8.0	---	106	147	61	18	18	12	27
31				8.0	---	100	---	62	---	21	19	---
TOTAL				1416.9	198.3	2331.0	2079	1295.9	1893.1	1125	457	674
MEAN				45.7	7.08	75.2	69.3	41.8	63.1	36.3	14.7	22.5
MAX				96	13	120	147	132	329	311	19	67
MIN				8.0	5.7	6.3	11	9.9	8.7	11	12	12
AC-FT				2810	393	4620	4120	2570	3750	2230	906	1340

06714000 SOUTH PLATTE RIVER AT DENVER, CO

LOCATION.--Lat 39°45'35", long 105°00'10", in NW¼SE¼ sec.28, T.3 S., R.68 W., Denver County, Hydrologic Unit 10190003, on right bank 90 ft upstream from Nineteenth Street Bridge in Denver and 0.4 mi downstream from Cherry Creek.

DRAINAGE AREA.--3,804 mi².

PERIOD OF RECORD.--May to October 1889, June to October 1890, July 1895 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1934(M). WSP 1730: 1957(M), drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,157.64 ft above National Geodetic Vertical Datum, adjustment of 1960. Prior to Aug. 12, 1909, nonrecording gages, and Aug. 12, 1909, to Aug. 28, 1931, water-stage recorder, at several sites within 0.5 mi of present site at various datums. Aug. 29, 1931, to June 28, 1965, water-stage recorder at site 70 ft downstream at datum 3.66 ft, higher. June 29, 1965, to Mar. 18, 1966, water-stage recorder at site 70 ft downstream at present datum.

REMARKS.--No estimated daily discharges. Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of about 79,000 acres and municipal use, and return flow from irrigated areas. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--79 years (water years 1896-1974), 344 ft³/s; 249,200 acre-ft/yr, prior to completion of Chatfield Dam: 10 years (water years 1976-85), 464 ft³/s; 336,200 acre-ft/yr, subsequent to completion of Chatfield Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,300 ft³/s, June 17, 1965, gage height, 18.66 ft, from floodmarks, present datum, from rating curve extended above 2,700 ft³/s, on basis of contracted-opening measurement of peak flow; minimum daily, 8.8 ft³/s, Mar. 25, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,280 ft³/s at 1800 July 19, gage height. 7.70 ft; minimum daily, 132 ft³/s, Mar. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	323	1390	277	545	161	132	267	2300	1180	500	1050	501
2	505	1380	277	463	195	178	244	2620	1260	454	903	540
3	577	1560	274	260	204	197	195	2740	1260	442	1110	428
4	3180	1540	253	277	170	195	311	2690	1750	382	1220	320
5	2310	1460	349	362	142	237	486	2550	1810	314	1020	331
6	1260	1280	317	362	151	287	515	2390	1570	418	745	372
7	1160	1260	260	389	149	292	530	2280	1050	486	648	239
8	1110	1260	272	472	214	314	545	2010	790	600	556	232
9	1080	1230	277	317	317	375	567	1660	1200	578	418	230
10	1060	1200	314	303	317	378	539	1340	1560	567	530	170
11	1040	1130	246	317	274	365	504	1320	1560	556	490	174
12	1010	594	468	495	248	295	589	1570	1650	556	418	249
13	903	510	472	500	217	328	775	1930	1540	589	392	176
14	1250	400	520	417	161	280	768	1930	1340	648	446	168
15	1060	311	674	213	147	274	745	1840	1140	1120	426	164
16	1340	295	578	202	197	430	674	1500	975	957	515	172
17	1470	375	386	197	215	430	667	1820	966	912	562	153
18	1540	540	290	195	180	400	702	1810	984	905	500	144
19	1340	550	284	195	174	272	674	1850	1100	1970	386	144
20	1080	738	290	193	244	274	667	1900	1220	1370	369	140
21	1060	674	280	195	272	320	681	1800	1070	434	362	159
22	984	612	272	193	300	280	941	1720	716	317	396	308
23	948	618	617	193	415	309	256	1630	520	433	459	210
24	948	630	562	199	328	320	344	1660	369	369	434	170
25	966	636	426	195	303	323	1210	1710	613	436	410	189
26	1000	630	400	195	228	314	1030	1710	1160	738	346	178
27	1090	318	282	193	159	311	1010	1630	1000	869	290	164
28	1060	554	280	195	136	303	1160	1370	1250	853	298	215
29	1130	309	280	178	---	356	1230	1250	723	966	298	382
30	1360	287	321	172	---	314	1830	1210	648	1120	340	246
31	1550	---	535	161	---	272	---	1160	---	1210	414	---
TOTAL	36694	24271	11333	8743	6218	9355	20656	56900	33974	22069	16751	7268
MEAN	1184	809	366	282	222	302	689	1835	1132	712	540	242
MAX	3180	1560	674	545	415	430	1830	2740	1810	1970	1220	540
MIN	323	287	246	161	136	132	195	1160	369	314	290	140
AC-FT	72780	48140	22480	17340	12330	18560	40970	112900	67390	43770	33230	14420

CAL YR 1984	TOTAL	353101	MEAN	965	MAX	3840	MIN	106	AC-FT 700400
WTR YR 1985	TOTAL	254232	MEAN	697	MAX	3180	MIN	132	AC-FT 504300

06714215 SOUTH PLATTE RIVER AT 64TH AVENUE AT COMMERCE CITY, CO

LOCATION.--Lat 39°48'44", long 104°57'28", in NW¼NW¼ sec. 12, T.3 S., R.68 W., Adams County, Hydrologic Unit 10190003, on right bank 300 ft southeast of intersection of York Street and East 64th Avenue and 1,900 ft upstream from mouth of Sand Creek at northeast corner of Metro Denver Sewage Disposal plant at Commerce City.

DRAINAGE AREA.--3,829 mi².

PERIOD OF RECORD.--January 1982 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,105 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Natural flow of stream affected by transmountain diversions, storage and flood-control reservoirs, power developments, diversions for irrigation and municipal use, and return flow from irrigated areas. Several observation of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,480 ft³/s, Aug. 20, 1984, gage height, 7.64 ft; minimum daily, 4.0 ft³/s, Mar. 25, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,000 ft³/s at 1930, July 19, gage height 7.07 ft; minimum daily, 13 ft³/s, Sept. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	314	1560	320	70	176	92	217	2280	875	297	1660	458
2	542	1550	314	66	200	194	99	2620	939	351	940	187
3	576	1730	302	59	218	217	33	2700	1050	374	432	188
4	3170	1690	280	60	188	222	41	2510	1600	350	520	210
5	2610	1620	367	63	169	260	169	2440	1670	291	520	191
6	1350	1420	362	63	188	308	188	2330	1460	403	334	130
7	1240	1380	297	58	176	314	195	2280	869	487	290	48
8	1190	1410	308	59	235	256	204	1990	563	607	268	114
9	1160	1410	320	57	367	285	142	1680	827	608	408	135
10	1150	1380	350	54	368	296	50	1350	1160	592	511	142
11	1140	1370	303	53	318	280	34	1290	1130	576	488	87
12	1100	796	471	57	285	172	36	1470	1230	576	411	59
13	1010	668	311	261	270	109	151	2010	1140	616	386	17
14	1470	529	215	512	96	43	326	2080	909	684	431	14
15	1180	432	234	263	55	39	392	2080	678	1260	424	16
16	1490	398	110	235	55	57	302	1730	553	1000	466	20
17	1630	451	75	231	57	63	180	2090	512	843	543	40
18	1580	647	70	235	53	60	151	1880	387	781	512	28
19	1420	658	66	235	49	40	270	1730	380	1890	399	29
20	1150	828	65	231	54	46	362	1740	472	1410	374	23
21	1140	790	65	231	65	45	380	1670	369	553	362	33
22	1100	577	66	226	85	41	820	1600	111	245	380	183
23	1060	685	88	226	198	46	200	1560	43	210	451	124
24	1060	685	82	231	119	45	128	1860	150	418	431	32
25	1100	685	66	231	92	40	1060	1910	260	107	410	16
26	1140	694	63	226	58	49	1150	1930	733	385	357	14
27	1220	383	59	226	46	39	976	1750	367	472	291	13
28	1200	574	59	231	44	37	1020	1230	789	445	302	25
29	1260	364	59	218	---	213	1040	1040	435	519	292	186
30	1460	338	60	204	---	276	1900	989	375	917	343	67
31	1660	---	68	180	---	227	---	919	---	1870	409	---
TOTAL	39872	27802	5875	5352	4284	4411	12216	56738	22036	20137	14345	2829
MEAN	1286	927	190	173	153	142	407	1830	735	650	463	94.3
MAX	3170	1730	471	512	368	314	1900	2700	1670	1890	1660	458
MIN	314	338	59	53	44	37	33	919	43	107	268	13
AC-FT	79090	55150	11650	10620	8500	8750	24230	112500	43710	39940	28450	5610

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CAL YR 1984  TOTAL    302283        MEAN    826    MAX    3290    MIN    54    AC-FT  599600
WTR YR 1985  TOTAL    215897        MEAN    591    MAX    3170    MIN    13    AC-FT  428200
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06716500 CLEAR CREEK NEAR LAWSON, CO

LOCATION.--Lat 39°45'57", long 105°37'32", in NW¼NW¼ sec.25, T.3 S., R.74 W., Clear Creek County, Hydrologic Unit 10190004, on left bank at east edge of Lawson, 30 ft downstream from private bridge, and 2.0 mi downstream from West Fork Clear Creek.

DRAINAGE AREA.--147 mi^2.

PERIOD OF RECORD.--March 1946 to current year. Records prior to 1959 include inflow from August P. Gumlick Tunnel (formerly Jones Pass tunnel).

REVISED RECORDS.--WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 8,080 ft, from topographic map. Mar. 29, 1946, to Sept. 30, 1967, at site 1.5 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Nov. 27 to Dec. 11, Dec. 11, 14-18, 20-27, Jan. 1 to Feb. 16, 19, Mar. 4, Mar. 5, Sept. 13. Records good except for estimated daily discharges, which are poor. Natural flow affected by minor transmountain diversion from Colorado River basin through Berthoud Pass ditch (see elsewhere in this report). No diversion above station. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--39 years, 139 ft^3/s; 100,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,130 ft^3/s, June 4, 1956, gage height, 7.41 ft, site and datum then in use, from rating curve extended above 1,600 ft^3/s, on basis of computation of peak flow over dam, caused by failure of Georgetown Dam on White Reservoir 5.0 mi upstream; minimum daily, 13 ft^3/s, Feb. 20, 1955.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 8	2200	*1,090	*5.78	No other peak greater than base discharge.			

Minimum daily, 24 ft^3/s, many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	128	101	58	40	24	29	35	85	340	349	216	86
2	135	98	56	40	24	30	36	102	352	349	216	90
3	151	96	54	40	24	30	37	137	402	343	202	86
4	174	88	54	42	24	28	39	163	408	349	191	96
5	170	86	54	40	24	30	34	187	450	349	182	86
6	157	94	58	38	24	30	36	193	558	352	180	81
7	135	86	56	38	26	30	36	180	715	334	165	70
8	141	89	56	36	26	30	40	229	875	331	149	72
9	141	88	54	34	26	30	42	258	880	334	145	72
10	126	85	54	34	26	32	40	255	810	340	145	71
11	130	92	54	34	28	32	43	255	710	322	145	76
12	130	90	53	34	28	32	43	229	654	313	149	81
13	132	86	53	36	28	32	45	212	650	328	139	75
14	134	86	50	36	30	30	51	193	654	310	130	72
15	126	76	50	38	30	32	60	193	658	289	123	70
16	121	76	50	34	32	32	68	193	678	274	119	68
17	125	82	50	34	33	31	78	193	670	269	114	63
18	126	78	50	32	32	32	82	204	646	277	114	63
19	123	75	53	32	30	33	76	214	618	349	112	65
20	121	70	50	30	33	32	61	200	606	346	111	62
21	111	70	44	30	32	32	60	202	594	361	106	65
22	107	74	44	28	32	32	59	195	562	316	96	70
23	106	71	44	28	32	30	58	198	538	310	92	70
24	96	71	44	30	30	33	58	236	526	289	89	68
25	98	75	46	30	30	36	58	295	534	272	88	70
26	102	71	48	30	30	36	56	307	506	269	90	63
27	109	54	50	30	28	35	56	334	450	266	95	67
28	109	64	51	28	30	35	67	391	405	249	89	68
29	109	64	50	26	---	35	75	419	380	255	82	71
30	111	60	45	24	---	33	75	405	361	236	76	68
31	107	---	43	24	---	33	---	367	---	224	76	---
TOTAL	3891	2396	1576	1030	796	987	1604	7224	17190	9554	4026	2185
MEAN	126	79.9	50.8	33.2	28.4	31.8	53.5	233	573	308	130	72.8
MAX	174	101	58	42	33	36	82	419	880	361	216	96
MIN	96	54	43	24	24	28	34	85	340	224	76	62
AC-FT	7720	4750	3130	2040	1580	1960	3180	14330	34100	18950	7990	4330

CAL YR 1984 TOTAL 84724 MEAN 231 MAX 1110 MIN 25 AC-FT 168100
WTR YR 1985 TOTAL 52459 MEAN 144 MAX 880 MIN 24 AC-FT 104100

06719505 CLEAR CREEK AT GOLDEN, CO

LOCATION.--Lat 39°45'11", long 105°14'05", in NE¼NW¼ sec.33, T.3 S., R.70 W., Jefferson County, Hydrologic Unit 10190004, on left bank 100 ft downstream from U.S. Highway 6 bridge at west edge of Golden, 0.7 mi downstream from headgate of Church ditch, and 13.3 mi downstream from North Clear Creek.

DRAINAGE AREA.--400 mi^2.

PERIOD OF RECORD.--October 1974 to current year. Records for station at site 0.8 mi upstream (October 1908 to December 1909, June 1911 to September 1974) are not equivalent due to diversions by Church ditch. Sediment data available April to September 1981.

GAGE.--Water-stage recorder. Elevation of gage is 5,695 ft, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 7-13, 15-21, 23-31, Jan. 20-24. Records good except for estimated daily discharges, and winter period, which are poor. Natural flow of stream affected by minor transmountain diversions from Colorado River basin through Berthoud Pass ditch (see elsewhere in this report) and several small reservoirs above station. Diversion by Welch ditch 1.4 mi upstream and by Church Ditch 0.7 mi upstream for irrigation of about 5,200 acres below station.

AVERAGE DISCHARGE.--11 years, 195 ft^3/s; 141,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,370 ft^3/s, July 10, 1983, gage height, 6.44 ft, minimum daily, 18 ft^3/s, Dec. 2, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,600 ft^3/s at 0200 June 9, gage height, 5.24 ft; minimum daily, 25 ft^3/s, Feb. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	137	162	73	54	36	53	41	100	406	347	228	163
2	152	153	65	26	69	51	38	109	406	340	245	171
3	171	152	52	53	82	47	48	138	474	332	212	142
4	319	140	65	85	98	42	51	179	509	330	191	174
5	281	136	60	72	100	40	36	224	523	340	180	159
6	243	143	56	63	103	60	36	237	664	353	172	139
7	207	136	56	63	114	50	36	216	940	335	163	134
8	190	132	56	61	117	47	40	277	1200	321	144	133
9	199	132	56	54	119	50	41	310	1340	326	149	129
10	182	121	56	50	125	56	47	282	1180	340	154	127
11	169	135	56	52	119	63	66	290	1010	316	149	129
12	173	131	56	40	123	57	53	259	890	305	155	153
13	189	128	58	44	122	55	52	228	870	318	148	129
14	201	125	58	57	84	49	57	190	890	305	142	123
15	192	114	58	82	58	53	68	182	872	288	133	115
16	202	107	58	60	41	52	76	179	872	266	140	117
17	209	118	58	57	34	53	84	200	884	250	142	104
18	223	105	58	70	29	55	99	233	848	278	152	100
19	203	103	58	72	29	56	99	228	793	393	153	107
20	205	95	58	67	31	46	73	224	747	395	145	103
21	191	93	58	66	28	42	69	241	721	430	153	108
22	181	105	58	64	27	38	66	254	667	330	153	115
23	174	100	58	60	25	34	49	268	613	338	147	125
24	165	100	58	66	26	35	50	290	587	302	141	118
25	168	100	58	76	27	40	54	384	615	281	140	121
26	166	98	58	74	26	46	50	406	655	258	141	118
27	179	68	58	72	31	40	42	430	522	266	147	126
28	175	78	58	64	51	39	60	509	438	226	150	122
29	170	83	58	60	---	39	66	551	395	271	139	126
30	171	71	58	65	---	38	93	530	375	252	131	126
31	167	---	58	38	---	41	---	460	---	228	127	---
TOTAL	5954	3464	1809	1887	1874	1467	1740	8608	21906	9660	4866	3856
MEAN	192	115	58.4	60.9	66.9	47.3	58.0	278	730	312	157	129
MAX	319	162	73	85	125	63	99	551	1340	430	245	174
MIN	137	68	52	26	25	34	36	100	375	226	127	100
AC-FT	11810	6870	3590	3740	3720	2910	3450	17070	43450	19160	9650	7650

CAL YR 1984 TOTAL 114904 MEAN 314 MAX 1430 MIN 42 AC-FT 227900
WTR YR 1985 TOTAL 67091 MEAN 184 MAX 1340 MIN 25 AC-FT 133100

06720500 SOUTH PLATTE RIVER AT HENDERSON, CO

LOCATION.--Lat 39°55'19", long 104°52'00", in SE¼NE¼ sec.34, T.1 S., R.67 W., Adams County, Hydrologic Unit 10190003, on right bank 500 ft upstream from bridge on State Highway 22 and 0.2 mi northwest of Henderson.

DRAINAGE AREA.--4,713 mi^2.

PERIOD OF RECORD.--May 1926 to current year. Prior to October 1933, monthly discharge only, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1934-36(M). WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,003.12 ft above National Geodetic Vertical Datum of 1929. See WSP 1710 or 1730 for history of changes prior to June 1, 1960. June 1, 1960, to May 10, 1969, water-stage recorder at site 1,200 ft upstream at datum 2.00 ft, higher. May 11 to Oct. 2, 1969, nonrecording gage at site 500 ft downstream at present datum.

REMARKS.--Estimated daily discharges: Jan. 2-13, 16-18, 20-27, Jan. 30 to Feb. 8, Mar. 4, 5. Records good except for estimated daily discharges, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, ground-water withdrawals, diversions for irrigation of about 253,000 acres, and return flow from irrigated areas. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--48 years (water years 1927-74), 366 ft^3/s; 265,200 acre-ft/yr, prior to completion of Chatfield Dam; 10 years (water years 1976-85), 669 ft^3/s; 484,700 acre-ft/yr, subsequent to completion of Chatfield Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,000 ft^3/s, May 6, 1973, gage height, 11.67 ft, from rating curve extended above 7,200 ft^3/s, partly on basis of flow-over-road measurement of peak flow; maximum gage height, 12.93 ft, June 17, 1965, site and datum then in use; minimum daily discharge, 4.4 ft^3/s, Apr. 1, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,100 ft^3/s at 0030 July 20, gage height, 6.74 ft; minimum daily, 229 ft^3/s, Apr. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	840	1860	694	327	520	371	530	2780	1160	482	964	839
2	1020	1790	694	315	525	464	407	2660	1230	464	700	1080
3	1010	1900	676	295	540	545	294	2660	1370	500	712	424
4	3330	1880	676	300	545	560	294	2340	2090	505	782	487
5	4320	1830	730	310	555	565	391	2330	2230	403	828	438
6	1890	1700	743	315	560	634	442	2320	2090	505	577	399
7	1660	1660	676	315	570	646	428	2330	1670	634	460	324
8	1670	1660	700	315	580	646	469	2070	1400	682	395	347
9	1660	1650	712	300	588	588	438	1820	1710	802	510	363
10	1620	1600	718	270	582	616	335	1480	1960	724	550	403
11	1660	1600	724	270	560	616	229	1410	1900	730	572	363
12	1540	1220	828	260	582	525	242	1440	1850	706	545	563
13	1510	1100	736	280	676	555	312	2420	1880	776	505	351
14	2210	938	482	724	464	420	415	2130	1530	814	496	305
15	1770	854	566	582	335	407	515	2250	1240	1890	500	312
16	2070	795	438	585	294	379	428	1940	1020	1150	520	324
17	2240	860	383	580	280	363	351	2140	1040	899	560	324
18	2290	1070	359	610	301	399	312	2230	912	932	577	320
19	2050	1070	367	588	355	399	364	2030	828	3520	505	290
20	1770	1180	359	465	379	359	492	2080	860	5830	478	272
21	1690	1180	359	545	383	367	460	1910	814	1340	424	290
22	1670	1070	355	530	395	327	997	1850	496	938	424	410
23	1600	1070	375	530	482	347	539	1800	363	752	464	492
24	1610	1070	375	545	496	331	266	2010	428	808	451	383
25	1640	1080	331	555	451	327	1280	2140	703	610	446	367
26	1670	1120	324	555	355	331	1730	2160	1540	718	428	371
27	1730	828	331	490	347	255	1260	2120	847	808	375	355
28	1670	938	343	550	379	252	1210	1590	1160	750	375	395
29	1680	750	324	530	---	431	1190	1320	802	828	379	652
30	1820	718	312	500	---	622	2490	1250	646	1020	399	525
31	1970	---	335	520	---	555	---	1250	---	1330	460	---
TOTAL	56880	38041	16025	13856	13079	14202	19110	62260	37769	32850	16361	12768
MEAN	1835	1268	517	447	467	458	637	2008	1259	1060	528	426
MAX	4320	1900	828	724	676	646	2490	2780	2230	5830	964	1080
MIN	840	718	312	260	280	252	229	1250	363	403	375	272
AC-FT	112800	75450	31790	27480	25940	28170	37900	123500	74910	65160	32450	25330

CAL YR 1984 TOTAL 491993 MEAN 1344 MAX 5220 MIN 312 AC-FT 975900
WTR YR 1985 TOTAL 333201 MEAN 913 MAX 5830 MIN 229 AC-FT 660900

06724000 ST. VRAIN CREEK AT LYONS, CO

LOCATION.--Lat 40°13'05", long 105°15'34", in NW¼NW¼ sec.20, T.3 N., R.70 W., Boulder County, Hydrologic Unit 10190005, on left bank 75 ft southwest of U.S. Highway 36 (State Highways 7 and 66) at southeast edge of Lyons, 400 ft upstream from St. Vrain Supply Canal, and 0.4 mi downstream from confluence of North and South St. Vrain Creeks.

DRAINAGE AREA.--212 mi^2.

PERIOD OF RECORD.--Streamflow records, August 1887 to September 1891, June 1895 to current year. Monthly discharge only for some periods, published in WSP 1310. Published as "near Lyons" 1901, 1903. Water-quality data available, October 1977 to February 1981.

REVISED RECORDS.--WSP 1310; 1898, 1900. WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 5,292 ft, from topographic map. Prior to Apr. 6, 1923, nonrecording gages near present site at different datums. Apr. 6, 1923, to Sept. 30, 1956, water-stage recorder at same site at datum 1.00 ft, higher.

REMARKS.--Estiamted daily discharges: Mar. 1-5. Records good. Diversiors above station for irrigation of about 2,000 acres (figure of 20,000 acres previously published, was in error). Flow partly regulated by small reservoirs above station.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--94 years (water years 1888-91, 1896-1985), 129 ft^3/s; 93,460 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,500 ft^3/s June 22, 1941, gage height, 9.06 ft, present datum, from floodmark, from rating curve extended above 2,100 ft^3/s, on basis of slope-area measurement at gage height, 8.90 ft; no flow Jan. 19, 20, 1922, Jan. 12, 13, 1950.

EXTREMES OUTSIDE PERIOD OF RECORD.--Outstanding floods occurred in June 1864 and May 1876. Flood in May or June 1894 reached a stage of 9.13 ft, from information by local resident, discharge, about 9,800 ft^3/s. For discussions of these floods, see WSP 997.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,040 ft^3/s at 0600 June 9, gage height, 5.08 ft; minimum daily, 14 ft^3/s, Jan. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	86	30	14	15	18	24	187	298	235	151	72
2	76	84	24	15	20	16	22	174	306	239	154	84
3	78	82	20	16	22	16	33	168	350	239	148	80
4	142	76	29	18	24	24	36	165	400	235	145	84
5	123	67	24	16	27	24	36	187	400	228	139	86
6	97	70	26	18	26	18	28	224	460	235	129	78
7	90	67	36	18	24	20	29	298	798	243	123	76
8	86	67	38	18	22	20	29	302	888	243	113	78
9	84	65	32	18	22	20	34	335	918	239	116	80
10	80	50	30	18	22	18	29	311	768	243	116	88
11	74	65	30	18	22	20	26	340	662	247	108	82
12	63	60	27	16	24	20	36	259	607	251	111	84
13	72	60	26	20	22	18	44	235	600	255	111	65
14	76	60	20	18	22	20	36	194	478	251	108	56
15	78	48	26	22	24	18	37	165	400	247	97	37
16	82	47	30	18	22	18	50	165	442	235	95	40
17	82	58	22	20	22	20	65	184	448	221	95	34
18	86	41	18	18	20	18	106	187	340	210	97	33
19	78	41	22	20	20	24	111	181	251	204	97	41
20	82	34	22	20	20	20	113	181	239	214	86	34
21	82	30	24	16	20	18	126	174	247	210	84	32
22	102	41	18	18	22	20	126	168	302	184	88	33
23	104	44	28	20	20	16	118	162	267	168	86	41
24	97	44	18	18	20	18	126	171	243	174	84	46
25	97	48	20	20	20	16	129	247	288	178	84	40
26	102	48	22	18	18	20	126	370	478	162	80	33
27	97	29	18	18	18	22	106	400	275	174	76	30
28	97	28	18	18	18	22	116	365	204	168	78	40
29	97	39	16	16	---	20	126	370	187	159	76	36
30	97	26	18	16	---	26	168	400	214	151	72	37
31	95	---	18	16	---	26	---	325	---	148	68	---
TOTAL	2774	1605	750	553	598	614	2191	7594	12758	6590	3215	1680
MEAN	89.5	53.5	24.2	17.8	21.4	19.8	73.0	245	425	213	104	56.0
MAX	142	86	38	22	27	26	168	400	918	255	154	88
MIN	63	26	16	14	15	16	22	162	187	148	68	30
AC-FT	5500	3180	1490	1100	1190	1220	4350	15060	25310	13070	6380	3330

CAL YR 1984 TOTAL 65532 MEAN 179 MAX 934 MIN 14 AC-FT 130000
WTR YR 1985 TOTAL 40922 MEAN 112 MAX 918 MIN 14 AC-FT 81170

06725450 ST VRAIN CREEK BELOW LONGMONT, CO.

LOCATION.--Lat 40°09'30", long 105°00'48", in NW¼NW¼ sec.9, T.2 N., R.68 W., Weld County, Hydrologic Unit 10190005, on left bank 1,750 ft upstream from mouth of Boulder Creek, 1.8 mi downstream from Spring Gulch, and 4.7 mi southeast of Longmont.

DRAINAGE AREA.--424 mi^2.

PERIOD OF RECORD.--October 1976 to September 1982, August 1984 to current year. Water-quality data available, October 1976 to February 1981.

GAGE.--Water-stage recorder. Elevation of gage is 4,852 ft from topographic map.

REMARKS.--Estimated daily discharges July 8-10. Records good. Natural flow of stream affected by storage reservoirs, diversions for irrigation, and return flow from irrigated areas. Several observations of specific conductance and temperature are published elsewhere in this report.

AVERAGE DISCHARGE.--7 years, 117 ft^3/s, 84,770 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,380 ft^3/s May 1, 1980, gage height, 6.37 ft; minimum daily, 22 ft^3/s Apr. 25, 1978, Apr. 3, 25, 1982.

EXTREMES FOR PERIOD AUGUST TO SEPTEMBER 1984.--Maximum discharge, 315 ft^3/s Aug. 20, gage height, 3.55 ft; minimum daily, 75 ft^3/s, Sept. 20.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 850 ft^3/s at 1100 Feb. 5, gage height, 4.80 ft; minimum daily, 45 ft^3/s, Apr. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1											---	185
2											---	231
3											---	208
4											---	185
5											---	165
6											---	158
7											---	145
8											---	168
9											---	150
10											---	145
11											---	148
12											---	158
13											---	135
14											---	145
15											155	150
16											170	155
17											175	153
18											185	130
19											208	119
20											216	110
21											246	110
22											264	110
23											249	110
24											231	107
25											261	124
26											261	119
27											228	102
28											210	108
29											193	112
30											185	121
31											190	---
TOTAL											---	4266
MEAN											---	142
MAX											---	231
MIN											---	102
AC-FT											---	8460

06725450 ST. VRAIN CREEK BELOW LONGMONT, CO--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	102	193	94	64	60	60	55	168	102	168	108	145
2	100	188	85	59	55	63	48	128	94	143	112	162
3	90	178	83	66	58	61	45	140	130	124	114	140
4	234	165	88	68	61	66	58	148	173	114	106	89
5	246	160	83	62	229	64	50	188	140	128	96	92
6	171	147	88	61	76	68	50	216	135	153	88	88
7	135	145	94	60	55	66	48	281	275	145	94	81
8	121	130	104	61	52	76	48	285	458	151	94	68
9	121	133	94	58	54	74	50	306	474	153	110	69
10	117	121	98	58	54	58	55	270	398	155	150	69
11	110	123	100	55	61	58	55	276	312	153	153	80
12	104	123	96	55	63	58	54	234	238	158	155	83
13	104	123	96	64	60	58	58	216	219	175	145	68
14	117	121	87	66	57	57	71	167	173	182	143	60
15	117	117	95	60	55	57	63	106	82	278	140	66
16	143	110	106	58	58	57	51	78	96	209	135	66
17	130	117	100	58	58	58	45	81	98	180	133	63
18	140	110	96	63	58	57	81	121	102	178	134	57
19	138	102	98	55	58	55	63	158	119	225	137	57
20	178	98	98	57	60	55	63	180	102	193	140	58
21	188	104	94	55	54	55	61	145	102	222	135	64
22	200	106	94	58	52	54	68	145	119	190	123	60
23	210	119	101	66	55	50	71	140	102	198	119	81
24	198	118	92	63	54	48	57	138	90	248	119	74
25	200	112	90	61	60	48	87	170	108	199	126	69
26	198	112	99	60	63	48	137	216	286	165	133	64
27	193	104	94	57	60	54	104	246	217	150	152	59
28	190	94	81	63	64	55	88	234	203	135	152	63
29	200	102	74	60	---	55	92	228	190	133	152	74
30	228	94	66	55	---	64	128	210	200	153	148	72
31	208	---	69	60	---	63	---	149	---	145	145	---
TOTAL	4931	3769	2837	1866	1804	1820	2004	5768	5537	5303	3991	2341
MEAN	159	126	91.5	60.2	64.4	58.7	66.8	186	185	171	129	78.0
MAX	246	193	106	68	229	76	137	306	474	278	155	162
MIN	90	94	66	55	52	48	45	78	82	114	88	57
AC-FT	9780	7480	5630	3700	3580	3610	3970	11440	10980	10520	7920	4640

WTR YR 1985 TOTAL 41971 MEAN 115 MAX 474 MIN 45 AC-FT 83250

06725500 MIDDLE BOULDER CREEK AT NEDERLAND, CO

LOCATION.--Lat 39°57'42", long 105°30'14", in NE¼SE¼ sec.13, T.1 S., R.73 W., Boulder County, Hydrologic Unit 10190005, on left bank at Nederland just downstream from North Beaver Creek and 1,000 ft upstream from Barker Reservoir.

DRAINAGE AREA.--36.2 mi^2.

PERIOD OF RECORD.--June 1907 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1730: Drainage area.

GAGE.--Water-stage recorder and compound sharp-crested weir. Datum of gage is 8,186.0 ft, Public Service Co. datum. Prior to Mar. 18, 1909, at datum 4.0 ft, lower. Mar. 18, 1909, to Apr. 23, 1952, at datum 2.5 ft, lower than present datum.

REMARKS.--Estimated daily discharges: Oct. 16-19, 24-26, Nov. 10-13, 16, 19, 21, 27-28, Dec. 2-3, 12-16, 22-24, 27, Jan. 1, 8-14, 20-21, 23, 30-31, Feb. 1-7, 10-12, 1[illegible]-19, 24-25, Mar. 4-5, 14, 21-23, Mar. 27 to Apr. 1. Records good except for estimated daily discharges, which are fair. No diversion above station. Flow regulated at times by Jasper Lake, capacity, 326 acre-ft. North Beaver Creek entered Middle Boulder Creek downstream from station June 1 to Dec. 31,1907, March 1911 to Dec. 31, 1916. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--78 years, 54.6 ft^3/s; 39,560 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 811 ft^3/s, June 2, 1914, gage height, 5.37 ft, datum then in use, by computation of peak flow over compound weir; minimum daily, 0.8 ft^3/s, Jan. 14, 1908.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 8	1900	*496	*3.38	No other peak greater than base discharge.			

Minimum daily, 5.3 ft^3/s, Mar. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	27	13	8.5	6.7	5.9	8.5	74	130	114	83	29
2	35	26	13	8.4	6.5	5.9	9.5	95	139	120	80	36
3	42	26	12	8.3	6.3	5.5	11	122	158	122	71	34
4	78	25	12	8.1	5.9	5.3	10	158	176	126	66	43
5	80	25	12	7.9	5.9	5.7	9.1	160	194	124	61	36
6	68	26	12	8.1	5.9	5.9	10	145	249	122	58	31
7	53	25	12	7.7	5.9	6.1	11	141	354	116	57	30
8	46	24	12	7.6	5.7	6.1	13	156	390	112	54	33
9	45	20	12	7.6	5.7	6.5	17	165	359	128	54	28
10	44	20	12	7.6	6.3	7.3	20	158	320	130	50	26
11	43	20	12	7.5	6.3	7.1	26	158	259	122	46	31
12	44	20	12	7.5	6.5	6.9	29	120	232	116	50	35
13	48	20	12	7.4	6.5	6.7	30	102	234	122	43	28
14	45	20	12	7.4	6.5	6.5	35	90	239	116	41	26
15	42	23	12	7.3	6.5	6.9	42	85	242	112	39	26
16	42	25	12	7.1	6.3	6.5	51	83	249	102	36	26
17	42	24	12	6.9	5.9	7.1	53	93	269	101	36	24
18	41	22	12	6.9	5.9	7.3	57	97	234	110	36	22
19	40	21	11	7.1	6.0	7.3	52	101	204	128	36	22
20	39	20	11	7.2	6.3	6.9	46	97	199	130	34	20
21	36	19	9.5	7.3	6.5	6.5	42	93	208	149	32	20
22	34	18	9.0	7.3	6.5	6.5	38	92	192	114	33	22
23	33	18	9.0	7.6	6.1	7.0	35	93	178	132	33	22
24	33	17	9.0	7.9	5.7	7.1	33	118	167	116	31	19
25	32	17	8.9	7.7	6.3	8.5	33	158	220	102	30	20
26	31	14	9.1	7.5	6.7	8.7	30	176	201	101	29	17
27	31	14	9.0	7.5	6.1	8.5	34	187	145	99	29	20
28	32	14	9.5	7.3	5.9	8.0	42	204	124	88	29	24
29	30	14	9.3	7.3	---	8.0	47	213	120	85	29	21
30	29	12	9.1	7.1	---	8.0	54	185	110	85	28	25
31	28	---	8.9	6.9	---	7.5	---	151	---	82	27	---
TOTAL	1300	616	340.3	233.5	173.3	213.7	928.1	4070	6495	3526	1361	796
MEAN	41.9	20.5	11.0	7.53	6.19	6.89	30.9	131	217	114	43.9	26.5
MAX	80	27	13	8.5	6.7	8.7	57	213	390	149	83	43
MIN	28	12	8.9	6.9	5.7	5.3	8.5	74	110	82	27	17
AC-FT	2580	1220	675	463	344	424	1840	8070	12880	6990	2700	1580

CAL YR 1984	TOTAL	28817.3	MEAN	78.7	MAX	417	MIN	4.0	AC-FT	57160
WTR YR 1985	TOTAL	20052.9	MEAN	54.9	MAX	390	MIN	5.3	AC-FT	39770

06726900 BUMMERS GULCH NEAR EL VADO, CO.

LOCATION.--Lat 40°00'42", long 105°20'53", in NE¼NW¼ sec.33, T.1 N., R.71 W., Boulder County , Hydrologic Unit 10190005, on left bank, 0.8 mi north of Highway 119 on Sugarloaf Road, 0.1 mi south of service road to Boulder Filtration Plant, 0.65 mi upstream from mouth and, 3.7 mi from Boulder County courthouse.

DRAINAGE AREA.--3.87 mi^2.

PERIOD OF RECORD.--July 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,270 ft, from topographic map.

REMARKS.--Estimated daily discharges: July 24 to Aug. 13. Records good except for estimated daily discharges, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7.8 ft^3/s, Apr. 25, 1984, gage height, 2.65 ft; minimum daily, 0.02 ft^3/s, Sept. 1, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2.5 ft^3/s at 2130 Oct. 3, gage height, 2.47 ft; minimum daily, 0.02 ft^3/s, Sept. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.41	.80	.43	.54	.35	.32	.53	.68	.30	.20	.15	.02
2	.37	.79	.43	.54	.34	.32	.55	.63	.30	.20	.14	.14
3	.52	.77	.42	.56	.34	.31	.55	.58	.32	.20	.13	.25
4	1.2	.76	.39	.55	.34	.32	.55	.55	.48	.16	.12	.16
5	.65	.73	.36	.56	.34	.32	.55	.55	.39	.16	.11	.12
6	.54	.76	.32	.59	.34	.31	.57	.53	.34	.16	.10	.05
7	.49	.76	.33	.59	.35	.31	.59	.50	.30	.18	.09	.05
8	.48	.72	.32	.59	.34	.31	.59	.48	.28	.18	.09	.07
9	.48	.73	.33	.62	.28	.31	.58	.48	.24	.18	.09	.08
10	.46	.72	.33	.59	.23	.32	.57	.46	.24	.18	.08	.20
11	.43	.73	.34	.55	.22	.32	.56	.46	.26	.18	.07	.27
12	.41	.71	.36	.57	.23	.32	.60	.44	.24	.18	.06	.20
13	.42	.68	.37	.60	.23	.32	.60	.48	.24	.18	.06	.19
14	.49	.71	.38	.58	.23	.30	.59	.44	.22	.18	.06	.17
15	.51	.72	.38	.53	.24	.30	.58	.41	.20	.16	.05	.09
16	.53	.69	.39	.50	.26	.30	.59	.44	.18	.16	.05	.07
17	.52	.69	.34	.50	.26	.30	.61	.44	.18	.16	.06	.05
18	.54	.65	.36	.49	.27	.30	.61	.44	.20	.16	.06	.05
19	.53	.65	.37	.50	.29	.43	.62	.44	.18	.20	.04	.05
20	.50	.62	.37	.41	.28	.56	.62	.50	.18	.18	.06	.12
21	.48	.58	.38	.26	.28	.56	.63	.46	.16	.18	.05	.13
22	.46	.56	.39	.26	.29	.60	.65	.48	.16	.22	.03	.17
23	.46	.55	.45	.24	.31	.56	.64	.46	.16	.20	.07	.17
24	.47	.55	.44	.22	.32	.56	.57	.41	.18	.19	.06	.18
25	.48	.55	.46	.28	.32	.55	.61	.39	.22	.18	.04	.17
26	.66	.51	.46	.37	.32	.47	.64	.37	.41	.18	.05	.16
27	.58	.43	.47	.37	.32	.48	.69	.34	.26	.18	.04	.15
28	.57	.47	.48	.37	.32	.48	.64	.32	.22	.18	.07	.16
29	.60	.47	.48	.37	---	.45	.66	.32	.20	.18	.07	.16
30	.67	.46	.50	.37	---	.49	.73	.30	.18	.18	.08	.17
31	.73	---	.53	.37	---	.51	---	.30	---	.16	.04	---
TOTAL	16.64	19.52	12.36	14.44	8.24	12.31	18.07	14.08	7.42	5.57	2.27	4.02
MEAN	.54	.65	.40	.47	.29	.40	.60	.45	.25	.18	.07	.13
MAX	1.2	.80	.53	.62	.35	.60	.73	.68	.48	.22	.15	.27
MIN	.37	.43	.32	.22	.22	.30	.53	.30	.16	.16	.03	.02
AC-FT	33	39	25	29	16	24	36	28	15	11	4.5	8.0

WTR YR 1985 TOTAL 134.94 MEAN .37 MAX 1.2 MIN .02 AC-FT 268

06727000 BOULDER CREEK NEAR ORODELL, CO

LOCATION.--Lat 40°00'23", long 105°19'49", in NE¼SW¼ sec.34, T.1 N., R.71 W., Boulder County, Hydrologic Unit 10190005, on left bank along State Highway 119, 0.7 mi southwest of old Orodell, 1.1 mi upstream from Fourmile Creek, and 2.9 mi southwest of courthouse in Boulder.

DRAINAGE AREA.--102 mi^2.

PERIOD OF RECORD.--August to October 1887, April to October 1888, October 1906 to November 1914, March 1916 to current year. Monthly discharge only for some periods, published in WSP 1310. Figures of daily discharge for Feb. 3-10, 17-25, 1912, published in WSP 326, have been found to be unreliable and should not be used. Published as North Boulder Creek, Colorado 1887-88 and as "at Orodell" March 1907 to December 1916.

REVISED RECORDS.--WSP 1310: 1941(M). WSP 1560: 1914(M). WSP 1730: Drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Elevation of gage is 5,826 ft, from topographic map. Prior to Sept. 1,1907, nonrecording gage, and Sept. 1, 1907, to May 11, 1917, water-stage recorder, at sites 1.1 mi downstream, just upstream from Fourmile Creek, at different datums.

REMARKS.--Estimated daily discharges: Dec. 7-13, Jan. 8-15, 19-21, Feb. 1-6. Records good except for estimated daily discharges, which are poor. Flow regulated by Barker Reservoir, capacity, 11,500 acre-ft. Low flow during nonirrigation season regulated by Orodell powerplant 1,500 ft upstream from station. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--77 years (water years 1907-14, 1917-85), 88.4 ft^3/s; 64,050 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,500 ft^3/s, June 6, 1921, gage height, 4.31 ft, from rating curve extended above 1,200 ft^3/s; minimum daily, 1 ft^3/s, Jan. 29, Feb. 1-3, 16-24, 1933.

EXTREMES OUTSIDE PERIOD OF RECORD.--Outstanding floods are known to have occcurred in June 1864, May 1876, June 1894, and June 1914, stages and discharges unknown.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 454 ft^3/s at 0130 June 10, gage height, 3.38 ft; minimum daily, 14 ft^3/s, Nov. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	39	22	31	30	21	23	94	140	143	111	20
2	39	34	20	26	30	24	30	86	140	140	104	44
3	28	31	20	25	30	21	36	78	124	134	91	51
4	103	33	15	31	30	19	34	82	124	128	78	62
5	72	36	20	32	30	19	28	86	106	143	69	64
6	56	28	15	33	30	21	24	74	98	148	64	58
7	48	27	18	28	27	22	26	76	118	140	54	44
8	43	18	17	29	28	21	31	90	106	128	62	44
9	29	27	17	29	32	20	37	71	338	137	78	37
10	28	27	18	29	27	23	33	61	410	146	71	41
11	22	27	18	29	28	23	37	71	336	131	66	41
12	17	27	19	29	31	23	44	74	271	121	78	45
13	35	24	20	29	30	16	49	76	253	126	66	54
14	68	24	20	29	30	20	45	76	310	137	48	44
15	32	14	21	29	33	26	38	72	325	137	50	26
16	56	16	21	37	32	25	48	61	342	128	47	29
17	58	24	22	24	30	23	40	69	380	104	39	31
18	62	22	26	25	30	23	35	83	347	118	35	29
19	63	18	26	27	26	23	54	80	285	193	45	28
20	42	18	18	29	21	24	50	71	253	193	37	30
21	42	17	31	31	22	26	51	76	262	220	27	48
22	40	26	31	35	21	23	43	74	244	170	20	30
23	47	28	31	30	18	18	45	81	212	173	15	29
24	39	28	31	29	21	28	53	76	204	157	25	51
25	36	29	31	27	30	27	52	81	271	148	40	44
26	48	23	31	29	26	29	46	100	358	124	36	55
27	48	22	31	27	26	24	48	106	223	124	17	37
28	38	21	37	35	23	23	54	87	170	121	17	27
29	37	21	36	21	---	25	61	72	167	116	42	44
30	39	26	34	35	---	22	91	78	163	118	29	37
31	38	---	32	40	---	23	---	116	---	116	20	---
TOTAL	1403	755	749	919	772	705	1286	2478	7080	4362	1581	1224
MEAN	45.3	25.2	24.2	29.6	27.6	22.7	42.9	79.9	236	141	51.0	40.8
MAX	103	39	37	40	33	29	91	116	410	220	111	64
MIN	17	14	15	21	18	16	23	61	98	104	15	20
AC-FT	2780	1500	1490	1820	1530	1400	2550	4920	14040	8650	3140	2430

CAL YR 1984 TOTAL 43970 MEAN 120 MAX 549 MIN 14 AC-FT 87210
WTR YR 1985 TOTAL 23314 MEAN 63.9 MAX 410 MIN 14 AC-FT 46240

06727500 FOURMILE CREEK AT ORODELL, CO

LOCATION.--Lat 40°01'08", long 105°19'32", in NW¼SE¼ sec.27, T.1 N., R.71 W., Boulder County Hydrologic Unit 10190005, on right bank 30 ft downstream from private bridge, 0.3 mi upstream from Highway 119 and mouth, 2.5 mi west of courthouse in Boulder.

DRAINAGE AREA.--24.1 mi^2.

PERIOD OF RECORD.--April 1947 to September 1953, April 1978 to September 1982 (peak stage and discharge only), July 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,760 ft, from topographic map. April 1, 1947 to September 30, 1953 water-stage recorder 500 feet downstream; April 1, 1978 to September 1982 crest-stage gage 200 feet downstream, at different datums.

REMARKS.--Estimated daily discharges: Oct. 1-18, Dec. 4 to Feb. 16, Feb. 19, 22-27, Mar. 1, 2, 4-8, Aug. 7-14 and Sept. 15-17. Records good except for estimated daily discharges, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--8 years (water years 1947-53, 1983-85), 6.95 ft^3/s, 5,040 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 256 ft^3/s, June 6, 1949, gage height, 3.66 ft; minimum daily, no flow Sept. 1-7, 15-18, 1948.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 64 ft^3/s at 0430 June 26, gage height, 3.27 ft; maximum gage height, 3.34 ft at 1700 May 7; minimum daily discharge, 0.10 ft^3/s, Sept. 17, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	9.1	4.3	2.2	1.9	2.6	2.6	27	32	7.6	2.0	.15
2	2.0	8.5	2.4	2.2	1.9	2.5	2.6	37	29	6.9	2.0	.22
3	2.1	8.7	1.8	2.2	1.9	2.4	2.9	42	29	6.3	1.8	.75
4	2.1	8.2	1.9	2.2	1.9	2.4	3.3	47	33	5.5	1.6	.50
5	2.2	7.7	1.9	2.2	1.9	2.4	2.9	48	26	5.2	1.5	.32
6	2.3	7.7	2.0	2.2	1.9	2.5	2.8	48	25	4.7	1.4	.28
7	2.4	7.5	2.0	2.2	1.8	2.5	2.5	48	27	4.2	1.3	.26
8	2.5	7.3	2.0	2.2	1.8	2.5	2.6	45	30	3.9	1.1	.35
9	2.6	7.0	2.0	2.2	1.8	2.5	2.9	44	38	3.9	.92	.66
10	2.8	6.4	2.0	2.2	1.8	3.1	3.1	44	37	3.8	.80	.59
11	3.0	6.7	2.1	2.2	1.8	3.5	3.6	46	34	3.4	.70	.50
12	3.3	6.3	2.1	2.2	1.8	3.3	3.6	43	30	3.0	.60	.42
13	3.5	6.2	2.1	2.2	1.8	3.3	3.6	42	27	2.8	.54	.29
14	3.8	6.0	2.1	2.1	1.8	3.3	3.7	35	24	2.6	.52	.21
15	4.1	5.4	2.1	2.1	1.8	3.2	5.1	30	22	3.2	.49	.17
16	4.4	5.5	2.1	2.1	1.8	3.1	5.8	25	21	3.3	.59	.14
17	4.5	5.7	2.1	2.1	1.8	3.1	6.6	25	21	2.4	.65	.10
18	4.9	4.7	2.1	2.1	2.0	3.3	7.5	22	19	2.6	.42	.10
19	5.2	4.8	2.1	2.1	2.1	3.2	8.5	21	18	4.6	.33	.11
20	5.2	5.0	2.1	2.1	2.2	2.9	8.7	25	16	4.5	.27	.16
21	5.2	5.1	2.1	2.1	2.2	2.7	8.9	24	15	4.1	.26	.25
22	5.0	5.1	2.1	2.0	2.3	2.7	9.0	24	14	3.3	.24	.20
23	4.9	4.9	2.1	2.0	2.3	2.4	8.5	23	13	4.2	.23	.50
24	4.9	4.1	2.1	2.0	2.4	2.6	8.2	22	12	3.9	.21	.48
25	5.1	4.1	2.1	2.0	2.5	2.4	8.3	22	16	3.4	.20	.54
26	6.2	4.0	2.1	2.0	23	2.7	8.2	23	37	2.7	.19	.56
27	8.2	2.9	2.1	2.0	2.6	2.6	7.9	26	20	2.4	.18	.50
28	9.5	4.1	2.1	2.0	2.7	2.3	8.4	29	17	2.3	.18	.73
29	9.6	5.3	2.1	1.9	---	2.5	9.1	32	13	2.4	.17	.82
30	9.8	4.5	2.1	1.9	---	2.7	15	34	8.1	2.5	.17	.84
31	9.2	---	2.1	1.9	---	2.9	---	34	---	2.4	.16	---
TOTAL	142.4	178.5	66.4	65.1	77.5	86.1	176.4	1037	703.1	118.0	21.72	11.70
MEAN	4.59	5.95	2.14	2.10	2.77	2.78	5.88	33.5	23.4	3.81	.70	.39
MAX	9.8	9.1	4.3	2.2	23	3.5	15	48	38	7.6	2.0	.84
MIN	1.9	2.9	1.8	1.9	1.8	2.3	2.5	21	8.1	2.3	.16	.10
AC-FT	282	354	132	129	154	171	350	2060	1390	234	43	23

CAL YR 1984	TOTAL	3512.6	MEAN	9.60	MAX	105	MIN	1.4	AC-FT	6970
WTR YR 1985	TOTAL	2683.92	MEAN	7.35	MAX	48	MIN	.10	AC-FT	5320

06729500 SOUTH BOULDER CREEK NEAR ELDORADO SPRINGS, CO

LOCATION.--Lat 39°55'52", long 105°17'43", in SE¼ sec.26, T.1 S., R.71 W., Boulder County, Hydrologic Unit 10190005, on left bank 0.2 mi downstream from South Draw, 1.0 mi west of Eldorado Springs, 1.8 mi downstream from South Boulder diversion canal, 5.0 mi south of Boulder, and 6.7 mi downstream from Gross Reservoir.

DRAINAGE AREA.--109 mi^2.

PERIOD OF RECORD.--April 1888 to October 1892, May 1895 to September 1901, August 1904 to current year. No winter records for water years 1889-92, 1900. Monthly discharge only for some periods, published in WSP 1310. Prior to January 1911, published as "at" or "near Marshall"; January 1911 to December 1913 as "at Eldorado Springs." Records for periods June 1900 to September 1901, August 1904 to September 1908, and October 1909 to September 1911, are not adjusted for diversions by Community ditch and South Boulder and Coal Creek ditch; all other records contain flow in these ditches.

REVISED RECORDS.--WSP 856: 1937(M). WSP 1310: 1937. WSP 1440: 1896. WSP 1710: Drainage area. WSP 1730: 1959-60.

GAGE.--Water-stage recorder. Elevation of gage is 6,080 ft, from topographic map. See WSP 1710 or 1730 for history of changes prior to May 10, 1940.

REMARKS.--Estimated daily discharges: Dec. 13 to Feb. 16. Records good except for estimated daily discharges, which are fair. Many small diversions above station for irrigation. Water is imported above Gross Reservoir from Colorado River basin through Moffat water tunnel. Flow regulated since May 1, 1955, by Gross Reservoir, capacity, 43,060 acre-ft, 6.7 mi above station. City of Denver diverts water 1.8 mi above station. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--29 years (water years 1957-85), 62.6 ft^3/s; 45,350 acre-ft/yr, unadjusted for storage and diversions.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,390 ft^3/s, Sept. 2, 1938, gage height, 9.24 ft, from floodmarks, site and datum then in use, from rating curve extended above 600 ft^3/s, on basis of slope-area measurement of peak flow; no flow Oct. 15, 1932.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 274 ft^3/s at 1000 May 31, gage height, 2.72 ft; minimum daily, 3.0 ft^3/s, Feb. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	30	16	5.0	4.0	20	26	114	218	100	67	19
2	26	36	16	5.0	3.0	20	27	128	218	94	69	23
3	29	42	19	5.0	3.0	21	27	128	236	91	74	21
4	44	42	16	5.0	9.0	23	27	128	246	87	72	27
5	37	42	24	4.5	9.0	21	27	126	254	87	64	36
6	32	42	16	4.5	16	20	27	170	240	94	48	34
7	31	43	15	9.5	16	20	26	200	222	98	42	29
8	30	42	15	13	16	20	26	200	218	102	42	28
9	42	42	15	13	10	20	31	218	218	106	36	28
10	53	40	14	13	7.0	21	43	236	222	118	32	28
11	53	40	20	13	7.0	21	48	236	222	131	32	29
12	50	40	14	13	7.0	21	48	236	200	131	32	30
13	49	40	16	13	7.0	28	48	215	187	128	32	33
14	50	40	15	13	7.0	30	48	206	187	128	32	30
15	50	31	14	13	7.0	30	48	190	200	104	32	30
16	52	24	15	13	7.0	31	50	155	222	87	32	30
17	60	24	14	13	6.0	32	62	142	229	94	32	30
18	69	23	14	10	8.5	30	67	144	232	94	34	30
19	70	23	15	9.0	10	30	65	142	236	106	34	25
20	70	23	11	9.0	24	30	64	144	215	114	34	17
21	70	23	10	9.0	12	21	64	150	203	114	35	14
22	64	23	10	9.0	13	15	64	155	203	114	30	14
23	58	23	10	9.0	13	15	62	158	203	114	26	12
24	58	23	10	10	12	15	59	167	203	126	29	14
25	51	23	10	13	12	15	59	170	181	147	35	16
26	45	23	10	13	13	15	59	172	172	155	29	16
27	46	23	6.0	13	16	14	59	172	170	152	23	21
28	46	21	4.5	12	18	21	59	170	167	118	19	25
29	38	16	4.5	12	---	28	62	190	136	96	19	24
30	32	16	4.5	6.0	---	26	81	215	114	85	19	24
31	31	---	4.5	6.0	---	26	---	222	---	74	18	---
TOTAL	1462	923	398.0	308.5	292.5	700	1463	5399	6174	3389	1154	737
MEAN	47.2	30.8	12.8	9.95	10.4	22.6	48.8	174	206	109	37.2	24.6
MAX	70	43	24	13	24	32	81	236	254	155	74	36
MIN	26	16	4.5	4.5	3.0	14	26	114	114	74	18	12
AC-FT	2900	1830	789	612	580	1390	2900	10710	12250	6720	2290	1460

CAL YR 1984 TOTAL 24927.3 MEAN 68.1 MAX 322 MIN 4.0 AC-FT 49440
WTR YR 1985 TOTAL 22400.0 MEAN 61.4 MAX 254 MIN 3.0 AC-FT 44430

NOTE.--NO GAGE-HEIGHT RECORD DEC. 16 TO FEB. 16.

06730500 BOULDER CREEK AT MOUTH NEAR LONGMONT, CO

LOCATION.--Lat 40°09'08", long 105°00'52", in NW¼SW¼ sec.9, T.2 N., R.68 W., Weld County, Hydrologic Unit 10190005, on left bank 0.6 mi upstream from mouth, 1.0 mi downstream from State Highway 254, and 4.8 mi southeast of Longmont.

DRAINAGE AREA.--439 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1927 to September 1949, May 1951 to September 1955, October 1978 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,860 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to June 10, 1939, at site 0.8 mi upstream at different datum. June 10, 1939, to Sept. 30, 1949, at site 1.0 mi upstream, at different datum. May 1, 1951, to Sept. 30, 1955, at site 1.4 mi upstream, at different datum.

REMARKS.--Estimated daily discharges: Oct. 1-17, Feb. 1-14, Mar. 12-19, Mar. 30 to Apr. 1, Sept. 23, 30. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--33 years (water years, 1928-49, 1952-55, 1979-85), 65.9 ft^3/s; 47,740 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,410 ft^3/s, Sept. 3, 1938, gage height, 6.94 ft, site and datum then in use, from rating curve extended above 340 ft^3/s, on basis of slope-area measurement of peak flow; no flow at times many years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 448 ft^3/s at 1600 June 10, gage height, 2.85 ft; minimum daily, 5.2 ft^3/s, May 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	133	78	76	90	76	55	143	30	16	13	25
2	37	126	74	77	90	74	54	128	27	21	17	34
3	42	121	71	72	90	78	56	100	14	19	24	39
4	47	114	74	76	90	76	61	96	198	23	30	67
5	52	113	67	76	90	72	60	112	151	34	32	64
6	60	111	71	76	90	78	55	105	138	38	28	47
7	66	108	71	76	90	79	54	102	145	28	29	33
8	75	107	74	76	90	82	54	65	130	20	23	32
9	84	103	76	76	90	75	54	64	211	19	23	32
10	94	102	76	79	90	71	55	39	402	19	27	30
11	105	99	76	81	90	71	58	51	300	29	19	28
12	120	100	76	92	89	72	52	59	196	32	27	30
13	130	99	75	92	89	72	55	90	233	37	26	30
14	150	95	76	85	89	73	49	75	210	41	13	30
15	170	94	78	87	88	74	49	43	60	61	14	27
16	190	87	78	81	86	75	45	38	37	49	15	25
17	200	86	78	90	85	76	49	60	46	21	16	34
18	203	87	78	82	79	76	46	68	38	19	13	30
19	207	85	84	82	82	78	30	51	13	94	15	30
20	184	82	82	78	79	75	50	80	11	220	19	29
21	169	80	76	87	76	76	42	42	17	215	22	44
22	168	79	78	85	69	72	33	60	23	178	22	51
23	167	83	76	85	72	63	25	135	10	162	23	53
24	159	84	74	88	68	62	10	98	14	149	24	55
25	154	84	81	81	71	60	13	59	24	128	26	68
26	155	85	78	84	74	58	68	42	232	93	28	55
27	154	77	75	81	74	56	45	35	119	50	30	58
28	146	78	78	81	81	50	23	13	22	24	33	52
29	138	78	78	82	---	55	30	5.2	7.7	10	33	69
30	133	76	78	79	---	55	113	24	15	12	37	70
31	130	---	76	84	---	55	---	37	---	18	30	---
TOTAL	3922	2856	2361	2527	2341	2165	1443	2119.2	3073.7	1879	731	1271
MEAN	127	95.2	76.2	81.5	83.6	69.8	48.1	68.4	102	60.6	23.6	42.4
MAX	207	133	84	92	90	82	113	143	402	220	37	70
MIN	33	76	67	72	68	50	10	5.2	7.7	10	13	25
AC-FT	7780	5660	4680	5010	4640	4290	2860	4200	6100	3730	1450	2520

CAL YR 1984 TOTAL 41327.7 MEAN 113 MAX 424 MIN 5.0 AC-FT 81970
WTR YR 1985 TOTAL 26688.9 MEAN 73.1 MAX 402 MIN 5.2 AC-FT 52940

06730500 BOULDER CREEK AT MOUTH NEAR LONGMONT, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1979 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)
OCT 17...	13:00	210	560	8.0	8.5	10.5	4500	2200	170
NOV 28...	10:30	67	650	8.3	2.5	13.0	34	76	230
DEC 27...	11:00	68	650	7.9	2.0	12.8	120	150	210
JAN 23...	11:00	100	370	7.6	0.0	13.6	120	230	120
FEB 20...	10:00	75	625	8.3	5.0	12.5	120	150	220
APR 01...	11:00	54	830	8.0	10.0	13.1	110	170	240
16...	10:30	44	690	8.5	16.0	12.0	90	160	220
MAY 13...	12:00	87	447	8.2	9.0	11.2	M	960	150
JUN 18...	09:00	44	360	8.4	16.5	11.6	100	520	140
JUL 22...	09:30	180	320	7.9	17.5	7.6	K100	1100	120
AUG 14...	08:30	9.4	800	7.9	16.5	6.2	68	330	310
SEP 24...	09:00	48	650	7.8	9.0	9.5	40	--	220

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 17...	35	20	42	1	5.9	143	110	21	0.7
NOV 28...	46	28	62	2	6.4	171	150	31	1.0
DEC 27...	41	26	58	2	4.1	165	130	24	0.8
JAN 23...	25	14	29	1	3.2	94	70	19	0.6
FEB 20...	40	28	53	2	3.0	147	150	17	0.8
APR 01...	48	28	71	2	7.5	142	160	46	1.1
16...	44	26	59	2	7.0	161	140	35	0.9
MAY 13...	31	17	35	1	3.1	103	87	13	0.7
JUN 18...	29	17	26	1	2.4	86	90	10	0.5
JUL 22...	25	14	23	0.9	2.7	77	56	9.7	0.4
AUG 14...	55	41	57	1	3.5	205	210	15	0.9
SEP 24...	42	27	53	2	4.8	146	100	17	0.8

K BASED ON NON-IDEAL COLONY COUNT.
M PRESENCE OF MATERIAL VERIFIED BUT NOT QUANTIFIED.

06730500 BOULDER CREEK AT MOUTH, NEAR LONGMONT, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT								
17...	7.1	330	0.45	186	1.50	0.71	70	16
NOV								
28...	6.0	430	0.59	78	2.80	1.50	77	39
DEC								
27...	7.0	390	0.53	72	--	1.80	91	81
JAN								
23...	5.9	220	0.3	60	1.10	0.68	82	62
FEB								
20...	6.8	390	0.53	78	1.40	0.82	46	70
APR								
01...	29	480	0.65	69	2.60	3.40	65	81
16...	6.3	420	0.56	49	2.20	2.10	78	54
MAY								
13...	8.0	260	0.35	60	2.20	0.70	42	31
JUN								
18...	5.9	230	0.32	28	1.00	0.32	49	9
JUL								
22...	6.3	180	0.25	89	0.80	0.32	43	46
AUG								
14...	5.0	510	0.69	13	0.91	0.19	22	32
SEP								
24...	6.2	340	0.46	44	2.60	0.63	17	22

06731000 ST. VRAIN CREEK AT MOUTH, NEAR PLATTEVILLE, CO

LOCATION.--Lat 40°15'29", long 104°52'45", in SE¼NW¼ sec.3, T.3 N., R.67 W., Weld County, Hydrologic Unit 10190005, on right bank 140 ft downstream from bridge on county road, 1.3 mi upstream from mouth, and 4.2 mi northwest of Platteville.

DRAINAGE AREA.--976 mi^2.

PERIOD OF RECORD.--July 1904 to December 1906, April to December 1915, March 1927 to current year. Prior to October 1933, monthly discharge only, published in WSP 1310.

REVISED RECORDS.--WSP 956: 1938(M). WSP 1440: 1934, 1935(M). WSP 1730: 1958, drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,740 ft, from topographic map. See WSP 1730 for history of changes prior to Apr. 25, 1960.

REMARKS.--Estimated daily discharges: Nov. 2-7, Dec. 6-11, 17-26, Jan. 2, 3, 10, 15, 20, 23, Jan. 30 to Feb. 5, Feb. 11, 12, Mar. 14-19, Apr. 26 to May 1. Records good except for estimated daily discharges, which are poor. Diversions above station for irrigation of about 177,000 acres. Flow partly regulated by many small reservoirs above station.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--60 years (water years 1905-6, 1928-85), 215 ft^3/s; 155,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,300 ft^3/s, Sept. 3, 1938, gage height, 8.93 ft, site and datum then in use, from rating curve extended above 4,700 ft^3/s; minimum daily, 12 ft^3/s, Apr. 23, 1935.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,050 ft^3/s at 1500 June 10, gage height, 4.05 ft; minimum daily, 118 ft^3/s, Apr. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	254	371	210	167	130	189	139	290	234	325	241	243
2	239	350	191	165	130	189	132	350	208	278	217	273
3	226	340	187	165	125	181	118	310	221	252	226	292
4	344	330	198	165	130	185	134	312	335	245	206	248
5	704	320	177	169	135	183	132	342	356	243	193	252
6	491	310	185	165	155	193	124	356	340	257	189	237
7	395	300	195	167	190	204	126	428	386	257	169	228
8	365	288	200	167	220	204	132	434	449	254	153	193
9	342	275	210	163	237	193	134	455	440	241	151	200
10	348	266	200	160	234	191	134	407	740	237	217	208
11	312	254	205	160	230	189	134	437	848	232	239	204
12	310	252	202	157	235	181	128	413	639	250	259	208
13	300	257	195	169	237	183	132	413	591	285	248	193
14	328	254	181	191	228	170	147	365	536	295	266	181
15	365	245	185	195	221	165	165	270	338	530	266	181
16	383	234	200	202	219	160	134	217	259	368	254	177
17	425	230	200	189	215	160	132	200	250	322	259	173
18	425	232	190	189	195	165	151	270	257	295	273	167
19	428	226	190	204	183	175	141	288	241	458	266	155
20	440	219	190	180	193	167	145	322	204	675	264	155
21	536	215	190	175	189	165	147	295	191	611	248	163
22	536	219	190	180	179	165	136	278	212	516	232	169
23	455	226	190	180	189	153	143	320	208	474	219	185
24	446	228	185	175	183	141	122	312	177	512	237	185
25	428	230	190	185	181	139	138	292	185	467	250	206
26	425	232	195	206	179	139	190	330	368	407	237	198
27	431	219	198	185	187	132	195	368	434	356	261	191
28	410	204	185	167	193	134	200	353	392	315	264	185
29	404	210	179	167	---	134	185	338	338	290	248	210
30	425	204	169	150	---	147	230	320	335	280	259	226
31	401	---	177	130	---	153	---	288	---	292	232	---
TOTAL	12321	7740	5939	5389	5322	5229	4400	10373	10712	10819	7243	6086
MEAN	397	258	192	174	190	169	147	335	357	349	234	203
MAX	704	371	210	206	237	204	230	455	848	675	273	292
MIN	226	204	169	130	125	132	118	200	177	232	151	155
AC-FT	24440	15350	11780	10690	10560	10370	8730	20570	21250	21460	14370	12070

CAL YR 1984 TOTAL 130159 MEAN 356 MAX 1280 MIN 100 AC-FT 258200
WTR YR 1985 TOTAL 91573 MEAN 251 MAX 848 MIN 118 AC-FT 181600

06733000 BIG THOMPSON RIVER AT ESTES PARK, CO

LOCATION.--Lat 40°22'42", long 105°30'48", in NW¼NW¼ sec.30, T.5 N., R.72 W., Larimer County, Hydrologic Unit 10190006, on right bank in Estes Park, 600 ft downstream from bridge on State Highways 7 and 66,900 ft downstream from Black Canyon Creek, and 0.3 mi northwest of Estes powerplant. Station is upstream from Lake Estes.

DRAINAGE AREA.--137 mi^2.

PERIOD OF RECORD.--October 1946 to current year. Prior to October 1947, published as Thompson River at Estes Park.

GAGE.--Water-stage recorder and Parshall flume with overflow weirs. Datum of gage is 7,492.5 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Prior to May 18, 1949, at site 740 ft downstream at different datum. May 18, 1949, to Mar. 22, 1951, at site 60 ft upstream at datum 1.2 ft, higher.

REMARKS.--Estimated daily discharges: Nov. 10, 11, 16, 18-24, Dec. 2-6, 14-19, 22-27, Jan. 1 to Mar. 18, Mar. 21-24, 27-28, Mar. 30 to Apr. 1. Records good except for estimated daily discharges, which are fair. Diversion from Colorado River basin to Aug. 2, 1950. Small power developments and small diversions for irrigation and municipal use above station. Diversions above station from Wind River to Lake Estes (bypassing this station) were 58 acre-ft during current year.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--39 years, 127 ft^3/s; 92,010 acre-ft/yr, adjusted for inflow from Alva B. Adams tunnel Aug. 10, 1947, to Aug. 2, 1950.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,500 ft^3/s July 15, 1982, caused by failure of Lawn Lake Dam, gage height, indeterminate; maximum natural discharge, 1,660 ft^3/s June 18, 1949, gage height, 3.16 ft, site and datum then in use; maximum known gage height, 6.89 ft, June 17, 1965; minimum discharge not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 9	0100	*1,350	*6.27	June 17	0400	723	4.82

Minimum daily discharge, 10 ft^3/s, many days

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	52	29	15	10	10	18	139	389	254	174	74
2	69	52	28	15	10	10	18	159	377	250	175	87
3	74	52	27	16	10	10	23	209	447	255	170	86
4	134	48	26	16	10	10	22	277	489	268	163	87
5	140	55	25	16	10	10	20	326	443	268	149	87
6	126	49	25	16	10	10	17	287	532	272	133	76
7	112	46	25	16	10	10	20	241	936	260	130	70
8	101	45	26	16	10	10	23	262	1110	260	124	80
9	96	45	26	16	10	10	29	304	1080	268	126	69
10	89	45	26	16	10	11	30	283	805	262	121	65
11	86	46	26	15	10	11	33	297	626	259	113	70
12	83	45	24	14	10	11	35	230	542	267	124	84
13	98	42	24	14	10	11	36	195	548	293	111	72
14	95	42	24	14	11	12	40	163	570	272	101	62
15	86	40	24	14	11	13	52	153	557	250	93	57
16	82	45	23	15	12	13	68	155	579	238	84	57
17	82	47	23	15	12	14	80	178	648	230	80	52
18	77	43	22	15	12	16	82	198	574	236	80	52
19	73	42	22	14	12	17	102	201	498	321	84	53
20	75	40	21	14	12	16	83	197	469	330	80	52
21	73	39	20	14	12	16	74	203	481	297	75	52
22	71	40	20	14	12	16	67	228	445	246	78	53
23	68	43	19	14	11	16	59	227	400	272	78	55
24	64	41	19	15	11	17	57	280	370	275	76	50
25	62	35	18	15	11	18	54	348	498	239	71	52
26	57	33	17	15	10	18	52	381	506	224	67	48
27	61	23	17	14	10	16	50	370	344	213	66	50
28	59	22	16	13	10	14	65	412	283	195	68	53
29	58	26	16	12	---	12	92	463	273	185	71	52
30	58	26	16	11	---	14	115	449	255	179	69	49
31	56	---	15	10	---	16	---	443	---	174	67	---
TOTAL	2537	1249	689	449	299	408	1516	8258	16074	7812	3201	1906
MEAN	81.8	41.6	22.2	14.5	10.7	13.2	50.5	266	536	252	103	63.5
MAX	140	55	29	16	12	18	115	463	1110	330	175	87
MIN	56	22	15	10	10	10	17	139	255	174	66	48
AC-FT	5030	2480	1370	891	593	809	3010	16380	31880	15500	6350	3780

CAL YR 1984 TOTAL 59330 MEAN 162 MAX 1010 MIN 10 AC-FT 117700
WTR YR 1985 TOTAL 44398 MEAN 122 MAX 1110 MIN 10 AC-FT 88060

NOTE.--NO GAGE-HEIGHT RECORD JAN. 1 TO MAR. 18.

06734900 OLYMPUS TUNNEL AT LAKE ESTES, CO

LOCATION.--Lat 40°22'30", long 105°29'13", in SE¼NW¼ sec.29, T.5 N., R.72 W., Larimer County, Hydrologic Unit 10190006, at tunnel entrance at south end of Olympus Dam on Lake Estes, 1.9 mi east of Estes Park.

PERIOD OF RECORD.--September 1970 to current year.

REMARKS.--Tunnel is part of Colorado-Big Thompson project. Field data collected prior to 1974 water year available in district office. Records of discharge are estimated values. A complete taxonomic identification with cell counts for phytoplankton available in district office.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT 18...	09:30	399	36	6.9	5.5	8.8	--	--	14	4.0	0.9
NOV 28...	14:30	197	40	7.0	2.0	8.7	--	--	16	4.9	1.0
DEC 27...	15:30	505	42	7.4	2.0	10.4	--	--	18	5.5	1.1
JAN 23...	14:30	197	52	6.8	1.5	11.5	--	--	22	6.5	1.3
FEB 20...	14:30	400	50	7.4	2.0	10.0	--	--	22	6.5	1.3
APR 01...	14:00	197	48	6.9	3.5	11.0	--	--	20	6.1	1.2
16...	15:00	490	52	7.3	7.0	9.7	33	K1	20	6.0	1.2
MAY 13...	16:00	505	38	7.2	6.5	9.9	M	80	16	4.7	1.0
JUN 18...	15:00	555	31	7.0	10.5	9.2	M	50	10	3.0	0.6
JUL 22...	14:00	501	31	7.1	14.0	8.0	430	32	11	3.2	0.66
AUG 14...	11:30	427	33	7.2	15.0	7.5	530	89	17	4.5	1.4
SEP 24...	12:45	398	37	7.2	9.5	6.5	710	80	16	4.7	0.98

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
OCT 18...	1.5	0.2	0.5	13	4.2	0.5	0.1	4.2	24	0.03
NOV 28...	1.8	0.2	0.6	14	5.5	0.7	0.1	4.9	28	0.04
DEC 27...	1.9	0.2	0.8	15	4.9	0.6	0.2	4.6	29	0.04
JAN 23...	2.1	0.2	0.8	18	6.2	0.7	0.1	5.0	34	0.05
FEB 20...	2.2	0.2	0.8	19	5.4	0.7	0.1	5.0	33	0.05
APR 01...	2.0	0.2	0.8	18	5.3	0.7	0.1	4.7	32	0.04
16...	1.9	0.2	0.8	17	5.4	0.5	0.1	4.9	31	0.04
MAY 13...	1.6	0.2	0.6	13	6.6	0.5	0.2	5.0	28	0.04
JUN 18...	1.4	0.2	1.1	9.0	5.3	0.9	<0.1	3.9	22	0.03
JUL 22...	1.2	0.2	0.4	9.0	4.2	0.6	0.1	3.5	19	0.03
AUG 14...	2.1	0.2	0.7	13	4.1	0.4	0.1	3.1	24	0.03
SEP 24...	1.9	0.2	1.5	16	4.9	0.3	0.1	3.7	28	0.04

K BASED ON NON-IDEAL COLONY COUNT.
M PRESENCE OF MATERIAL VERIFIED BUT NOT QUANTIFIED.

06734900 OLYMPUS TUNNEL AT LAKE ESTES, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALGAL GROWTH POTEN- TIAL, BOTTLE TEST (MG/L)	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)
OCT 18...	26	<0.01	<0.10	0.01	0.01	0.01	100	<1	--	--
NOV 28...	15	<0.01	0.10	0.03	0.01	<0.01	120	16	--	--
DEC 27...	39	<0.01	<0.10	0.03	0.02	0.02	86	6	--	--
JAN 23...	18	<0.01	<0.10	0.02	0.03	0.02	73	3	--	--
FEB 20...	36	<0.01	<0.10	0.06	0.01	0.01	68	4	--	--
APR 01...	17	<0.01	0.10	0.07	0.01	<0.01	59	8	--	--
16...	41	<0.01	<0.10	0.06	0.02	0.01	79	13	0.7	6800
MAY 13...	38	<0.01	<0.10	0.05	0.01	0.02	110	10	19	20600
JUN 18...	32	<0.01	0.11	0.06	0.02	0.02	230	10	1.9	3900
JUL 22...	26	<0.01	<0.10	0.04	0.01	<0.01	85	8	4.2	5700
AUG 14...	28	<0.01	<0.10	0.06	0.02	0.01	75	2	1.0	7900
SEP 24...	30	<0.01	<0.10	0.06	0.03	<0.01	66	4	2.9	32100

06735500 BIG THOMPSON RIVER NEAR ESTES PARK, CO

LOCATION.--Lat 40°22'35", long 105°29'06", in NE¼NE¼ sec.29, T.5 N., R.72 W., Larimer County, Hydrologic Unit 10190006, on right bank 100 ft upstream from Dry Gulch, 600 ft downstream from Olympus Dam, and 2.0 mi east of Estes Park.

DRAINAGE AREA.--155 mi^2. Area at site used Jan. 29, 1934, to Mar. 21, 1951, 162 mi^2.

PERIOD OF RECORD.--July 1930 to current year. Prior to October 1933, monthly discharges only, published in WSP 1310. Published as Thompson River near Estes Park 1934-47.

REVISED RECORDS.--WDR CO-76-1: Drainage area.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 7,422.5 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Prior to Jan. 29, 1934, nonrecording gage on highway bridge 1.5 mi downstream at different datum. Jan. 29, 1934, to Mar. 21, 1951, water-stage recorder at site 0.4 mi downstream at datum 10.5 ft, lower.

REMARKS.--No estimated daily discharges. Records good. Low flow regulated by Lake Estes since Nov. 30, 1948. Diversion from ColoradoRiver basin to Big Thompson River basin above station through Alva B. Adams tunnel began Aug. 10, 1947 (seestation 09013000 in Volume 2 for diversion during current year); since Apr. 15, 1953, this imported water has been diverted from Lake Estes through Olympus tunnel bypassing this station. Since May 17, 1955, part of the natural flow of Big Thompson River (298,700 during current year) has also been diverted through Olympus tunnel and returned to the river below the station at mouth of canyon, near Drake. Small power developments and small diversions for irrigation and municipal use above station. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 2,800 ft^3/s, June 20, 1933, gage height, 4.0 ft, site and datum then in use, from rating curve extended above 460 ft^3/s; no flow, Aug. 1 to Sept. 30, 1976 (all flow into Lake Estes diverted through Olympus tunnel after flood of July 31, 1976).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 972 ft^3/s at 1300 June 9, gage height, 5.60 ft; minimum daily, 5.1, ft^3/s, Feb. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	64	24	20	13	11	23	126	352	272	125	61
2	50	61	24	20	13	7.1	28	195	302	272	124	68
3	51	56	24	20	12	6.7	22	219	290	267	124	75
4	51	55	22	20	12	6.7	26	318	350	270	125	75
5	50	52	22	20	12	6.7	25	385	389	280	125	75
6	50	59	23	20	12	8.4	25	479	516	280	125	75
7	49	54	24	20	11	10	23	314	817	287	125	71
8	51	52	24	20	11	10	24	239	955	273	125	65
9	51	49	25	19	6.3	10	27	267	955	273	124	71
10	50	45	24	20	6.3	10	33	304	833	278	124	64
11	50	52	24	15	6.7	9.8	34	287	747	255	120	60
12	51	55	24	15	6.7	9.3	37	293	648	255	109	65
13	49	43	24	16	6.3	9.8	41	230	564	262	119	73
14	50	42	25	16	6.3	9.8	45	198	568	287	105	66
15	50	41	24	16	6.3	9.8	47	168	590	263	93	58
16	49	42	24	16	6.3	9.8	61	159	579	242	87	49
17	50	54	24	16	5.9	10	77	160	601	252	80	49
18	49	48	24	16	5.9	10	88	187	669	242	80	49
19	49	48	24	14	5.1	11	93	203	596	249	82	48
20	49	26	22	14	5.9	16	112	206	523	311	84	49
21	49	26	23	14	6.4	18	90	201	469	318	77	48
22	49	26	22	14	8.0	26	83	280	500	281	75	47
23	49	25	22	14	10	26	71	332	469	124	76	48
24	49	25	22	14	11	26	109	293	421	125	78	50
25	50	25	22	14	11	36	107	287	391	125	74	46
26	47	25	22	13	11	23	100	350	508	125	69	45
27	47	25	22	14	11	22	54	475	523	125	67	43
28	49	25	22	13	11	19	56	421	368	125	65	45
29	48	25	22	13	---	25	70	419	304	125	68	48
30	50	25	20	13	---	17	100	557	288	125	67	46
31	47	---	20	13	---	28	---	443	---	126	61	---
TOTAL	1533	1250	714	502	249.4	457.9	1731	8995	16085	7094	2982	1732
MEAN	49.5	41.7	23.0	16.2	8.91	14.8	57.7	290	536	229	96.2	57.7
MAX	51	64	25	20	13	36	112	557	955	318	125	75
MIN	47	25	20	13	5.1	6.7	22	126	288	124	61	43
AC-FT	3040	2480	1420	996	495	908	3430	17840	31900	14070	5910	3440

CAL YR 1984	TOTAL	36867	MEAN	101	MAX	811	MIN	10	AC-FT	73130
WTR YR 1985	TOTAL	43325.3	MEAN	119	MAX	955	MIN	5.1	AC-FT	85940

06737500 HORSETOOTH RESERVOIR NEAR FORT COLLINS, CO

LOCATION.--Lat 40°36'00", long 105°10'06", in NW¼SW¼ sec.6, T.7 N., R.69 W., Larimer County, Hydrologic Unit 10190007, on right bank near abutment of Horsetooth Dam on tributaries to Cache la Poudre River, 4.8 mi west of city hall in Fort Collins. Water-quality sampling at three sites in reservoir.

WATER-CONTENTS RECORDS

PERIOD OF RECORD.--April 1951 to current year.

GAGE.--Nonrecording gage read at irregular intervals from 1 to 10 days. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations above National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by an earth and rockfill dike and dams closing openings in subsequent valleys between hogbacks; storage began Jan. 10, 1951; dams completed July 21, 1949. Usable capacity, 143,500 acre-ft above elevations 5,320 ft, invert of channel from Spring Canyon Dam, 5,310 ft, invert of channel from Dixon Canyon Dam, 5,270 ft, trashrack sill of outlet at Soldier Canyon Dam, and below maximum water-surface elevation, 5,430 ft, 6 ft below crest of Satanka Dike. Dead storage, 7,003 acre-ft. Figures given represent usable contents. Water is diverted from Colorado River basin through Alva B. Adams tunnel for supplemental irrigation supply to Cache la Poudre River.

COOPERATION.--Records provided by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 141,600 acre-ft July 2, 1970, elevation, 5,429.02 ft; minimum observed, 9 acre-ft Nov. 16-30, 1977,elevation, 5,270.25 ft; no storage prior to Apr. 18, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 132,200 acre-ft, June 17, 18, elevation, 5,421.12 ft; minimum, observed, 63,000 acre-ft, Nov. 15, elevation, 5,378.54 ft.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	5,381.02	a65,120	-
Oct. 31	5,379.36	64,110	-1,010
Nov. 30	5,383.76	70,220	+6,110
Dec. 31	5,389.14	78,000	+7,780
CAL YR 1984	-	-	-34,500
Jan. 31	5,398.36	92,260	+14,260
Feb. 28	5,406.10	105,100	+12,840
Mar. 31	5,418.25	126,800	+21,700
Apr. 30	5,414.01	119,000	-7,800
May 31	5,415.12	121,000	+2,000
June 30	5,401.92	98,050	-22,950
July 31	5,397.68	91,170	-6,880
Aug. 31	5,383.42	69,740	-21,430
Sept. 30	5,386.18	73,680	+3,940
WTR YR 1985			+7,740

a-COMPUTED ON BASIS OF REVISED CAPACITY TABLE PUT INTO USE OCT. 1, 1984.

06737500 HORSETOOTH RESERVOIR NEAR FORT COLLINS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1969 to current year.

REMARKS.--Samples collected at various depths near north end of reservoir near Soldier Canyon Dam. Reservoir storage represents usable contents. A complete taxonomic identification with cell counts for phytoplankton available in district office.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)
MAY						
14...	10:15	0.1	60	9.2	9.0	9.3
14...	10:16	5.0	60	8.8	9.0	9.4
14...	10:17	10.0	60	8.7	8.5	9.4
14...	10:18	20.0	60	8.6	8.5	9.5
14...	10:19	25.0	60	8.6	8.0	9.5
14...	10:20	30.0	60	8.6	8.0	9.6
14...	10:21	40.0	60	8.5	8.0	9.7
14...	10:22	50.0	60	8.5	8.0	9.7
14...	10:23	60.0	60	8.4	7.5	9.7
14...	10:24	70.0	60	8.4	7.0	9.8
14...	10:25	75.0	60	8.4	7.0	9.7
14...	10:26	80.0	60	8.4	7.0	9.7
14...	10:27	90.0	60	8.4	7.0	9.8
14...	10:28	100	60	8.3	6.5	9.7
14...	10:29	110	60	8.3	6.0	9.8
JUL						
25...	08:30	0.1	56	7.7	20.0	6.8
25...	08:31	5.0	56	7.7	20.0	6.9
25...	08:32	10.0	56	7.7	20.0	6.9
25...	08:33	20.0	56	7.8	18.5	6.6
25...	08:34	25.0	54	7.7	18.0	6.6
25...	08:35	30.0	53	7.7	17.5	6.6
25...	08:36	40.0	51	7.7	16.0	6.4
25...	08:37	50.0	53	7.7	14.5	6.6
25...	08:38	60.0	55	7.7	13.0	6.6
25...	08:39	70.0	55	7.7	11.5	6.8
25...	08:40	75.0	56	7.7	11.0	6.6
25...	08:41	80.0	57	7.7	10.5	6.7
25...	08:42	90.0	59	7.7	10.0	6.6
25...	08:43	100	60	7.7	9.5	6.7
25...	08:44	110	61	7.7	8.5	6.8
25...	08:45	120	62	7.7	8.0	6.8
25...	08:46	125	63	7.7	8.0	6.6
25...	08:47	130	63	7.7	8.0	6.5
SEP						
04...	11:05	0.1	53	8.1	20.5	6.4
04...	11:06	5.0	52	7.9	20.0	6.4
04...	11:07	10.0	52	7.9	20.0	6.3
04...	11:08	20.0	52	7.9	19.5	6.0
04...	11:09	25.0	52	7.8	19.5	5.8
04...	11:10	30.0	52	7.8	19.0	5.4
04...	11:11	40.0	51	7.7	18.5	5.1
04...	11:12	50.0	49	7.7	18.0	4.8
04...	11:13	60.0	48	7.5	17.5	4.8
04...	11:14	70.0	48	7.5	17.0	4.8
04...	11:15	75.0	48	7.5	16.0	4.7
04...	11:16	80.0	49	7.4	15.5	4.7
04...	11:17	90.0	50	7.4	14.0	4.6
04...	11:18	100	52	7.3	12.5	4.6
04...	11:19	110	53	7.3	11.5	4.5
04...	11:20	120	56	7.3	10.5	4.2

DATE	TIME	SAM- PLING DEPTH (FEET)	TRANS- PAR- ENCY (SECCHI DISK) (IN)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ALGAL GROWTH POTEN- TIAL, BOTTLE TEST (MG/L)	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)
MAY												
14...	10:15	0.1	48.0	--	--	--	--	--	--	--	--	--
JUL												
25...	08:25	0.1	48.0	K5	K2	44	<0.01	<0.10	0.04	<0.01	1.4	92900
25...	08:45	120	--	--	--	40	<0.01	0.17	0.02	<0.01	--	--
SEP												
04...	11:05	0.1	37.0	--	--	--	--	--	--	--	--	--

K BASED ON NON-IDEAL COLONY COUNT.

403147105083800 HORSETOOTH RESERVOIR NEAR FORT COLLINS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1983 to current year.

REMARKS.--Samples collected at various depths near south end of reservoir, near Spring Canyon Dam. A complete taxonomic identification with cell counts for phytoplankton available in district office.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)
MAY						
14...	12:45	0.1	60	8.0	11.5	9.1
14...	12:46	5.0	60	8.0	10.5	9.2
14...	12:47	10.0	60	8.0	10.0	9.4
14...	12:48	20.0	60	8.1	10.0	9.5
14...	12:49	25.0	60	8.1	10.0	9.5
14...	12:50	30.0	60	8.1	10.0	9.5
14...	12:51	40.0	60	8.1	9.0	9.6
14...	12:52	50.0	60	8.1	9.0	9.7
14...	12:53	60.0	60	8.1	8.0	9.8
14...	12:54	70.0	55	8.0	7.5	9.8
14...	12:55	75.0	60	8.0	7.0	10.0
14...	12:56	80.0	60	7.9	6.5	10.0
14...	12:57	90.0	60	7.9	6.0	10.0
14...	12:58	100	60	7.9	6.0	10.0
14...	12:59	110	60	7.9	6.0	9.9
14...	13:00	120	60	7.9	6.0	9.8
14...	13:01	125	60	7.9	6.0	9.9
14...	13:02	130	60	7.9	5.5	9.7
JUL						
25...	11:10	0.1	55	7.6	21.5	6.9
25...	11:11	5.0	55	7.6	20.5	6.9
25...	11:12	10.0	55	7.6	20.0	6.5
25...	11:13	20.0	54	7.6	19.5	6.9
25...	11:14	25.0	45	7.6	19.0	7.2
25...	11:15	30.0	46	7.6	18.0	7.3
25...	11:16	40.0	43	7.6	17.5	7.0
25...	11:17	50.0	44	7.6	15.5	6.8
25...	11:18	60.0	51	7.5	13.0	6.7
25...	11:19	70.0	54	7.5	9.5	6.8
25...	11:20	75.0	61	7.5	9.0	6.8
25...	11:21	80.0	62	7.5	8.0	6.9
25...	11:22	90.0	63	7.5	7.5	6.8
25...	11:23	100	64	7.5	7.0	6.5
25...	11:24	110	64	7.5	7.0	6.2
25...	11:25	120	65	7.5	7.0	5.8
25...	11:26	125	66	7.4	7.0	5.2
25...	11:27	130	66	7.4	7.0	4.8
SEP						
04...	13:50	0.1	55	7.4	20.0	6.7
04...	13:51	5.0	54	7.4	19.5	6.4
04...	13:52	10.0	54	7.5	19.5	5.9
04...	13:53	20.0	54	7.5	19.0	5.8
04...	13:54	25.0	53	7.5	18.5	5.6
04...	13:55	30.0	52	7.5	18.0	5.6
04...	13:56	40.0	52	7.4	18.0	5.4
04...	13:57	50.0	51	7.4	17.0	5.1
04...	13:58	60.0	50	7.4	12.5	4.4
04...	13:59	70.0	54	7.3	8.5	4.6
04...	14:00	75.0	61	7.3	7.5	4.5
04...	14:01	80.0	63	7.3	7.5	4.4
04...	14:02	90.0	64	7.2	7.0	3.8
04...	14:03	100	64	7.2	7.0	3.1
04...	14:04	110	66	7.1	7.0	2.7

DATE	TIME	SAMPLING DEPTH (FEET)	TRANSPARENCY (SECCHI DISK) (IN)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	ALGAL GROWTH POTENTIAL, BOTTLE TEST (MG/L)	PHYTOPLANKTON, TOTAL (CELLS PER ML)
MAY												
14...	12:45	0.1	40.0	--	--	--	--	--	--	--	--	--
JUL												
25...	11:05	0.1	40.0	K12	K3	33	--	--	0.04	0.01	1.6	52600
25...	11:25	120	--	--	--	38	<0.01	0.20	0.03	0.01	--	--
SEP												
04...	13:50	0.1	40.0	--	--	--	--	--	--	--	--	--

K BASED ON NON-'DEAL COLONY COUNT.

403317105090000 HORSETOOTH RESERVOIR NEAR FORT COLLINS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1983 to current year.

REMARKS.--Samples collected at various depths near center of reservoir, near Dixon Canyon Dam. A complete taxonomic identification with cell counts for phytoplankton available in district office.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)
MAY						
14...	12:00	0.1	60	8.1	10.0	9.1
14...	12:01	5.0	60	8.0	9.0	9.3
14...	12:02	10.0	60	8.0	9.0	9.6
14...	12:03	20.0	60	8.0	9.0	9.9
14...	12:04	25.0	60	8.1	9.0	10.0
14...	12:05	30.0	60	8.1	9.0	9.9
14...	12:06	40.0	60	8.1	9.0	10.0
14...	12:07	50.0	60	8.1	8.5	10.1
14...	12:08	60.0	60	8.1	8.5	10.1
14...	12:09	70.0	60	8.1	7.0	10.1
14...	12:10	75.0	60	8.0	7.0	10.2
14...	12:11	80.0	60	8.0	7.0	10.2
14...	12:12	90.0	60	8.0	6.5	10.2
14...	12:13	100	60	8.0	6.5	10.2
14...	12:14	110	60	8.0	6.0	10.2
14...	12:15	120	60	8.0	6.0	10.2
14...	12:16	125	60	8.0	6.0	10.1
14...	12:17	130	60	8.0	6.0	10.1
14...	12:18	140	60	7.9	6.0	9.2
14...	12:19	150	60	7.9	6.0	9.1
JUL						
25...	09:30	0.1	55	7.7	[illegible].5	6.9
25...	09:31	5.0	56	7.7	20.0	7.0
25...	09:32	10.0	56	7.7	20.0	6.8
25...	09:33	20.0	56	7.7	19.0	6.8
25...	09:34	25.0	52	7.6	18.0	6.9
25...	09:35	30.0	46	7.6	18.0	6.8
25...	09:36	40.0	48	7.6	17.0	6.2
25...	09:37	50.0	49	7.6	15.0	6.4
25...	09:38	60.0	52	7.6	13.5	6.5
25...	09:39	70.0	54	7.6	10.5	6.8
25...	09:40	75.0	57	7.6	10.0	6.8
25...	09:41	80.0	59	7.6	9.0	7.1
25...	09:42	90.0	61	7.5	8.5	7.2
25...	09:43	100	63	7.5	8.0	7.2
25...	09:44	110	63	7.5	8.0	6.8
25...	09:45	120	63	7.5	8.0	6.4
25...	09:46	125	64	7.5	7.5	6.0
25...	09:47	130	65	7.5	7.5	5.9
25...	09:48	140	65	7.5	7.5	5.2
SEP						
04...	12:15	0.1	54	7.4	20.5	6.5
04...	12:16	5.0	53	7.4	19.5	6.4
04...	12:17	10.0	53	7.5	19.0	6.2
04...	12:18	20.0	53	7.5	19.0	6.2
04...	12:19	25.0	52	7.6	19.0	6.0
04...	12:20	30.0	51	7.5	18.5	5.8
04...	12:21	40.0	51	7.5	18.0	5.2
04...	12:22	50.0	49	7.5	17.5	5.3
04...	12:23	60.0	47	7.4	15.0	4.8
04...	12:24	70.0	49	7.4	10.0	5.3
04...	12:25	75.0	57	7.4	9.0	5.2
04...	12:26	80.0	57	7.3	8.5	5.2
04...	12:27	90.0	60	7.3	8.0	5.4
04...	12:28	100	61	7.3	8.0	4.9
04...	12:29	110	63	7.3	8.0	4.4
04...	12:30	120	64	7.2	7.5	4.1
04...	12:31	125	64	7.2	7.5	4.0

DATE	TIME	SAMPLING DEPTH (FEET)	TRANSPARENCY (SECCHI DISK) (IN)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	ALGAL GROWTH POTENTIAL, BOTTLE TEST (MG/L)	PHYTOPLANKTON, TOTAL (CELLS PER ML)
MAY												
14...	12:00	0.1	44.0	K3	K1	44	<0.01	<0.10	0.04	<0.01	20	21200
JUL												
25...	09:30	0.1	47.0	K4	K1	27	<0.01	<0.10	0.04	<0.01	1.5	76850
25...	09:47	130	--	--	--	44	<0.01	0.18	0.02	<0.01	--	--
SEP												
04...	12:15	0.1	49.0	K5	--	45	<0.01	<0.10	0.03	<0.01	3.4	48200

K BASED ON NON-IDEAL COLONY COUNT.

06738000 BIG THOMPSON RIVER AT MOUTH OF CANYON, NEAR DRAKE, CO

LOCATION.--Lat 40°25'18", long 105°13'34", in SW¼SW¼ sec.3, T.5 N., R.70 W., Larimer County, Hydrologic Unit 10190006, on right bank at mouth of canyon, 400 ft upstream from Handy Ditch diversion dam, and 6.0 mi east of Drake.

DRAINAGE AREA.--305 mi^2.

PERIOD OF RECORD.--August 1887 to September 1892, May 1895 to September 1903, October 1926 to September 1933 (no winter records prior to October 1932, except water years 1927-28), April 1938 to September 1949, March 1951 to current year. Monthly discharge only for some periods, published in WSP 1310. Published as Big Thompson Creek at Arkins 1887-92, Big Thompson Creek near Arkins 1901-3, and as Thompson River at mouth of canyon, near Drake 1927-30, 1938-47.

REVISED RECORDS.--WSP 1310: 1891, 1927. WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,305.47 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Oct. 1, 1949, to Sept. 18, 1977, at present site, datum 8.00 ft lower, Sept. 19, 1977, to July 27, 1980, at present site, datum 7.37 ft lower. See WSP 1710 or 1730 for history of changes prior to Oct. 1, 1949.

REMARKS.--Estimated daily dischatges: Oct. 16-18, Nov. 21 to Mar. 24, Apr. 5-9, 17, 19-21, 23, June 13, 14, 18, 28, July 6, 15, 16, Sept. 25, 29. Records good except those for winter period and those for period of no gage height record, which arepoor. Diversions above station for irrigation. Diversions from Colorado River basin to Big Thompson Riverbasin above station through Alva B. Adams tunnel began Aug. 10, 1947 (see station 09013000 in Volume 2 fordiversion during current year); since Apr. 15, 1953, this imported water has been diverted from Lake Estes through Olympus tunnel bypassing this station. Part of the natural flow of the Big Thompson River has also been diverted through Olympus tunnel since May 17, 1955, 298,700 acre-ft diverted during current year, and Dille tunnel since Apr. 20, 1959, 36,250 acre-ft diverted during current year, and returned to the river just below this station. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,200 ft^3/s, July 31, 1976, gage height, 19.86 ft, from floodmarks, from slope-area measurements of peak flow; no flow at times in 1976 (all flow above station diverted through Olympus and Dille tunnels after flood of July 31, 1976), 1979-80 (all flow above station diverted through Dille tunnel).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 708 ft^3/s at 0100 June 9, gage height, 3.73 ft; minimum daily, 10 ft^3/s, Feb. 24, 26

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	77	89	33	32	19	16	37	252	109	136	96	80
2	75	94	20	30	18	16	38	103	86	129	104	89
3	78	91	21	30	17	15	39	50	74	127	96	92
4	131	89	25	30	17	14	38	72	115	122	131	94
5	111	86	31	30	16	14	37	134	89	149	115	96
6	98	89	30	31	16	16	36	178	176	170	102	92
7	91	88	35	32	17	17	33	33	499	165	104	89
8	89	83	42	31	16	16	36	58	671	184	96	83
9	91	81	45	31	15	17	39	64	671	215	91	88
10	88	73	45	30	15	18	45	80	582	212	88	81
11	83	80	41	28	15	19	49	74	496	208	81	81
12	84	83	35	27	15	18	51	70	622	212	73	89
13	86	77	36	26	14	17	54	81	620	219	80	92
14	86	69	30	27	13	18	58	61	400	226	75	89
15	86	64	35	27	13	20	64	45	350	190	91	80
16	84	68	35	25	11	20	74	43	350	120	104	70
17	83	78	34	26	11	19	95	57	370	84	98	65
18	70	72	33	25	12	20	105	81	580	100	98	64
19	84	30	34	24	11	21	110	89	671	162	98	64
20	89	33	31	24	11	22	130	62	629	212	94	64
21	88	35	30	24	12	25	120	60	608	141	91	62
22	86	41	25	23	12	25	105	68	602	104	88	64
23	88	40	27	21	11	27	95	89	589	161	88	66
24	83	39	31	20	10	29	113	109	563	122	88	65
25	86	40	35	19	11	34	134	152	556	105	84	65
26	81	40	38	20	10	34	131	280	615	104	80	62
27	86	25	39	20	12	34	88	397	608	104	78	61
28	84	27	38	21	14	30	86	419	525	98	78	64
29	83	32	37	22	---	34	118	274	454	98	83	63
30	84	30	33	21	---	35	244	220	232	105	86	62
31	84	---	32	20	---	33	---	150	---	98	80	---
TOTAL	2697	1866	1036	797	384	693	2402	3905	13512	4582	2839	2276
MEAN	87.0	62.2	33.4	25.7	13.7	22.4	80.1	126	450	148	91.6	75.9
MAX	131	94	45	32	19	35	244	419	671	226	131	96
MIN	70	25	20	19	10	14	33	33	74	84	73	61
AC-FT	5350	3700	2050	1580	762	1370	4760	7750	26800	9090	5630	4510

CAL YR 1984	TOTAL	48926.0	MEAN	134	MAX	929	MIN	9.0	AC-FT 97040
WTR YR 1985	TOTAL	36989	MEAN	101	MAX	671	MIN	10	AC-FT 73370

06741480 BIG THOMPSON RIVER ABOVE LOVELAND, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 40°24'02", long 105°07'20", in SW¼NE¼ sec.16, T.5 N., R.69 W., Larimer County, Hydrologic Unit 10190006, at Wilson Avenue bridge 9 mi upstream from Greeley-Loveland Ditch and 2.5 mi west of Loveland.

DRAINAGE AREA.--525 mi^2, approximately.

PERIOD OF RECORD.--June 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
OCT 24...	10:00	21	740	7.9	5.5	12.2	380	110	25
NOV 29...	09:30	42	380	8.0	1.0	13.8	170	50	12
DEC 28...	10:00	3.0	1050	8.3	3.0	11.8	540	150	41
JAN 24...	11:00	33	380	8.0	0.5	12.5	170	50	12
FEB 21...	10:00	18	600	8.1	1.0	12.6	320	94	20
APR 02...	10:00	6.9	780	8.0	8.5	12.0	410	120	28
17...	10:00	395	85	7.2	10.0	10.2	33	9.8	2.0
MAY 14...	09:00	24	300	7.3	8.0	11.2	120	35	8.6
JUN 19...	10:00	406	47	8.5	12.0	8.4	19	5.8	1.2
JUL 23...	08:30	177	220	8.0	15.5	8.3	93	26	6.7
AUG 15...	08:30	104	235	7.9	16.0	8.3	110	31	7.9
SEP 27...	12:15	14	670	8.4	11.0	11.4	290	85	18

DATE	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
OCT 24...	19	0.4	2.0	151	230	6.6	0.3	12	500
NOV 29...	--	--	--	79	--	--	0.2	8.0	--
DEC 28...	--	--	--	132	--	--	0.4	7.2	--
JAN 24...	--	--	--	72	--	--	0.3	8.8	--
FEB 21...	--	--	--	117	--	--	0.3	8.2	--
APR 02...	--	--	--	127	--	--	0.3	7.1	--
17...	2.7	0.2	0.9	23	12	0.8	0.2	5.1	47
MAY 14...	8.4	0.3	1.2	41	78	2.9	0.3	7.1	170
JUN 19...	--	--	--	12	--	--	0.2	4.7	--
JUL 23...	--	--	--	44	--	--	0.2	4.6	--
AUG 15...	--	--	--	53	--	--	0.2	4.7	--
SEP 27...	--	--	--	93	--	--	0.3	6.5	--

06741480 BIG THOMPSON RIVER ABOVE LOVELAND, CO--CONTINUED

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CYANIDE TOTAL (MG/L AS CN)
OCT 24...	0.67	28	<0.01	0.46	0.04	0.4	0.01	--
NOV 29...	--	--	<0.01	--	0.03	0.3	<0.01	0.01
DEC 28...	--	--	0.01	--	0.11	0.6	0.01	--
JAN 24...	--	--	<0.01	--	0.03	0.5	0.04	--
FEB 21...	--	--	<0.01	--	0.03	0.8	0.01	<0.01
APR 02...	--	--	<0.01	--	0.06	0.4	<0.01	--
17...	0.06	51	<0.01	<0.10	0.02	0.7	0.01	--
MAY 14...	0.23	11	<0.01	0.27	0.04	0.6	0.02	<0.01
JUN 19...	--	--	<0.01	--	0.03	0.6	0.01	--
JUL 23...	--	--	<0.01	--	0.03	0.4	0.02	--
AUG 15...	--	--	<0.01	--	0.04	0.5	0.02	<0.01
SEP 27...	--	--	0.01	--	0.04	0.3	<0.01	--

DATE	TIME	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)
OCT 24...	10:00	40	--	<1	3	2	--	48
NOV 29...	09:30	--	<1	<1	2	4	90	41
DEC 28...	10:00	50	--	<1	1	3	--	31
JAN 24...	11:00	80	--	<1	2	2	--	33
FEB 21...	10:00	--	<1	<1	4	9	3300	21
APR 02...	10:00	50	--	<1	2	4	--	19
17...	10:00	410	--	<1	2	4	--	60
MAY 14...	09:00	--	<1	<1	6	4	250	85
JUN 19...	10:00	1000	--	<1	3	6	--	81
JUL 23...	08:30	410	--	<1	<1	12	--	34
AUG 15...	08:30	1400	--	<1	3	3	--	26
SEP 27...	12:15	40	--	1	10	3	--	25

06741480 BIG THOMPSON RIVER ABOVE LOVELAND, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
OCT							
24...	5	--	44	--	--	--	10
NOV							
29...	3	20	22	<0.1	8	4	<10
DEC							
28...	<1	--	140	--	--	--	20
JAN							
24...	<1	--	13	--	--	--	<10
FEB							
21...	7	110	31	0.1	19	8	20
APR							
02...	1	--	51	--	--	--	<10
17...	4	--	5	--	--	--	<10
MAY							
14...	5	20	16	0.1	<1	8	<10
JUN							
19...	41	--	3	--	--	--	20
JUL							
23...	2	--	7	--	--	--	20
AUG							
15...	3	--	8	--	--	--	20
SEP							
27...	<1	--	32	--	--	--	30

06741510 BIG THOMPSON RIVER AT LOVELAND, CO

LOCATION.--Lat 40°22'43", long 105°03'38", in SE¼SE¼ sec.24, T.5 N., R.69 W., Larimer County, Hydrologic Unit 10190006, on right bank 690 ft downstream from county road bridge C-13, 1.7 mi south of sugar refinery in Loveland, and 1.9 mi downstream from Farmers Ditch diversion.

DRAINAGE AREA.--535 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1979 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,906 ft, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 12 to Feb. 21. Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, diversions for irrigation, and return flow from irrigated areas.

COOPERATION.--City of Loveland.

EXTREMES FOR PERIOD OF RECC[illegible]--Maximum discharge, 6,970 ft^3/s, Apr. 30, 1980, gage height, 10.10 ft, from highwater mark; minimum daily, 0.80 ft^3/s, May 11, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 542 ft^3/s at 1115 June 18, gage height, 4.24 ft; minimum daily, 5.8 ft^3/s, Oct. 18,

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	131	67	8.8	43	30	9.9	8.1	95	114	44	169
2	17	153	70	9.2	40	30	9.1	7.1	87	107	39	181
3	14	122	58	7.2	40	31	8.4	7.1	72	79	38	166
4	16	117	61	23	40	30	8.3	7.7	74	76	35	107
5	19	117	63	43	40	23	11	24	81	83	34	49
6	21	119	60	41	37	24	11	46	94	88	36	33
7	23	120	68	38	35	34	11	20	165	96	36	41
8	21	113	79	42	35	30	11	6.8	360	105	31	41
9	21	111	78	43	35	26	164	16	445	99	33	38
10	21	100	53	36	35	26	248	20	395	84	47	39
11	18	105	33	43	33	27	191	17	311	74	59	23
12	15	109	31	45	30	22	194	20	342	64	55	25
13	17	105	30	45	30	13	296	18	223	58	58	22
14	14	98	30	45	30	12	382	15	132	62	49	23
15	6.8	101	35	45	30	12	379	18	94	61	43	18
16	8.3	99	45	45	28	8.2	388	22	78	52	50	16
17	6.1	109	39	45	25	8.5	386	26	116	47	54	11
18	5.8	104	40	45	23	8.1	379	26	353	49	56	9.9
19	10	81	46	45	22	11	390	27	441	74	58	8.7
20	22	47	40	45	21	11	379	83	319	67	54	9.4
21	23	70	24	45	20	10	379	117	258	43	59	10
22	25	83	14	45	28	13	386	70	267	41	60	10
23	30	84	7.2	45	26	18	377	44	294	45	59	21
24	31	85	9.1	45	25	22	371	66	281	34	59	19
25	32	83	8.7	45	28	43	378	91	287	29	54	13
26	64	78	7.3	45	29	51	266	154	314	29	44	12
27	122	57	6.6	45	28	39	75	203	273	33	111	11
28	121	51	6.5	45	31	31	8.1	177	256	34	179	14
29	125	64	6.5	45	---	13	9.8	120	264	35	178	19
30	123	57	6.5	45	---	11	9.3	85	178	51	177	18
31	123	---	6.6	45	---	9.8	---	81	---	63	169	---
TOTAL	1161.0	2873	1129.0	1234.2	867	677.6	6114.9	1642.8	6949	1976	2058	1177.0
MEAN	37.5	95.8	36.4	39.8	31.0	21.9	204	53.0	232	63.7	66.4	39.2
MAX	125	153	79	45	43	51	390	203	445	114	179	181
MIN	5.8	47	6.5	7.2	20	8.1	8.1	6.8	72	29	31	8.7
AC-FT	2300	5700	2240	2450	1720	1340	12130	3260	13780	3920	4080	2330

CAL YR 1984 TOTAL 37481.6 MEAN 102 MAX 882 MIN 4.2 AC-FT 74340
WTR YR 1985 TOTAL 27859.5 MEAN 76.3 MAX 445 MIN 5.8 AC-FT 55260

NOTE.--NO GAGE-HEIGHT RECORD JAN. 12 TO FEB. 21.

06741510 BIG THOMPSON RIVER AT LOVELAND, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT									
24...	13:00	33	700	8.5	8.0	15.0	340	93	26
NOV									
29...	12:00	58	390	8.6	2.0	15.6	180	49	13
DEC									
28...	13:00	6.5	1000	8.2	4.0	15.0	560	140	51
JAN									
24...	13:30	48	500	8.4	0.0	13.6	240	67	17
FEB									
21...	13:00	20	700	8.2	2.0	12.2	350	97	25
APR									
02...	12:30	11	960	8.3	12.0	14.6	470	120	41
17...	12:30	381	100	7.7	11.0	10.0	38	11	2.6
MAY									
14...	11:00	13	605	8.6	12.0	15.0	290	74	26
JUN									
19...	12:00	406	65	6.8	13.5	9.8	26	7.2	2.0
JUL									
23...	11:15	38	340	8.5	19.5	8.6	160	41	14
AUG									
15...	11:15	35	600	8.4	18.5	10.4	250	59	24
SEP									
28...	12:30	9.5	800	8.3	5.0	10.5	350	94	29

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT									
24...	26	0.6	1.9	127	240	6.6	0.3	7.6	480
NOV									
29...	--	--	--	71	--	--	0.2	5.0	--
DEC									
28...	--	--	--	153	--	--	0.4	4.0	--
JAN									
24...	--	--	--	92	--	--	0.3	8.6	--
FEB									
21...	--	--	--	122	--	--	0.3	6.8	--
APR									
02...	--	--	--	129	--	--	0.4	3.5	--
17...	3.5	0.3	1.0	25	19	1.0	0.2	5.2	59
MAY									
14...	30	0.8	1.7	88	240	7.7	0.4	3.7	440
JUN									
19...	--	--	--	15	--	--	0.1	4.5	--
JUL									
23...	--	--	--	65	--	--	0.2	4.0	--
AUG									
15...	--	--	--	81	--	--	0.3	4.8	--
SEP									
28...	--	--	--	120	--	--	0.3	5.0	--

06741510 BIG THOMPSON RIVER AT LOVELAND, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CYANIDE TOTAL (MG/L AS CN)
OCT 24...	0.65	43	<0.01	0.29	0.04	0.6	0.01	--
NOV 29...	--	--	<0.01	--	0.03	0.3	0.01	0.01
DEC 28...	--	--	0.01	--	0.19	1.0	0.07	--
JAN 24...	--	--	<0.01	--	0.03	0.6	0.02	--
FEB 21...	--	--	0.02	--	0.10	1.2	0.13	<0.01
APR 02...	--	--	<0.01	--	0.07	0.5	<0.01	--
17...	0.08	60	<0.01	<0.10	0.02	0.3	0.01	--
MAY 14...	0.59	15	<0.01	0.13	0.05	0.6	0.01	<0.01
JUN 19...	--	--	<0.01	--	0.03	0.4	0.01	--
JUL 23...	--	--	<0.01	--	0.03	0.8	<0.01	--
AUG 15...	--	--	<0.01	--	0.01	0.5	0.03	<0.01
SEP 28...	--	--	0.01	--	0.08	0.3	0.01	--

DATE	TIME	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)
OCT 24...	13:00	60	--	<1	<1	3	--	48
NOV 29...	12:00	--	<1	<1	15	11	150	47
DEC 28...	13:00	50	--	<1	<1	3	--	66
JAN 24...	13:30	140	--	<1	3	2	--	28
FEB 21...	13:00	--	<1	<1	<1	4	320	28
APR 02...	12:30	50	--	<1	1	3	--	66
17...	12:30	640	--	<1	2	3	--	63
MAY 14...	11:00	--	<1	1	2	4	130	46
JUN 19...	12:00	560	--	<1	2	3	--	87
JUL 23...	11:15	530	--	1	<1	5	--	22
AUG 15...	11:15	770	--	<1	4	4	--	20
SEP 28...	12:30	60	--	1	8	2	--	44

06741510 BIG THOMPSON RIVER AT LOVELAND, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UC/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
OCT							
24...	6	--	33	--	--	--	10
NOV							
29...	2	30	28	<0.1	6	4	<10
DEC							
28...	<1	--	120	--	--	--	<10
JAN							
24...	<1	--	15	--	--	--	<10
FEB							
21...	2	50	55	<0.1	9	7	<10
APR							
02...	1	--	58	--	--	--	<10
17...	<1	--	5	--	--	--	<10
MAY							
14...	3	20	18	0.1	<1	8	<10
JUN							
19...	2	--	5	--	--	--	50
JUL							
23...	<1	--	13	--	--	--	20
AUG							
15...	2	--	15	--	--	--	60
SEP							
28...	<1	--	39	--	--	--	50

06741520 BIG THOMPSON RIVER BELOW LOVELAND, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 40°23'00", long 105°01'45", in NW¼SE¼ sec.20, T.5 N., R.68 W., Larimer County, Hydrologic Unit 10190006, at county road 9 E bridge, about 0.3 mi upstream from outlet ditch and 2.0 mi southeast of Loveland.

DRAINAGE AREA.--540 mi², approximately.

PERIOD OF RECORD.--June 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT									
24...	15:00	45	810	8.7	10.5	14.7	350	88	31
NOV									
29...	14:00	67	460	8.8	4.0	16.4	--	--	--
DEC									
28...	15:00	15	1000	8.2	9.0	14.5	390	91	40
JAN									
24...	15:00	57	600	8.6	3.0	13.8	270	71	22
FEB									
21...	15:00	28	810	8.2	5.0	11.5	330	85	28
APR									
02...	15:00	18	980	8.4	17.0	12.8	390	92	38
17...	15:00	402	130	7.6	12.5	9.6	46	13	3.3
MAY									
14...	13:00	26	850	8.7	14.5	14.0	320	77	32
JUN									
19...	15:30	406	100	6.8	17.0	8.5	34	9.1	2.7
JUL									
23...	13:00	49	600	8.0	25.0	8.8	220	53	22
AUG									
15...	13:00	52	725	8.7	22.5	11.4	270	63	27
SEP									
27...	15:00	20	950	8.5	15.0	12.2	320	78	31

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT									
24...	47	1	3.5	127	280	14	0.6	6.7	550
NOV									
29...	--	--	--	--	--	--	--	--	--
DEC									
28...	--	--	--	130	--	--	0.9	5.8	--
JAN									
24...	--	--	--	100	--	--	0.4	8.2	--
FEB									
21...	--	--	--	108	--	--	0.6	10	--
APR									
02...	--	--	--	117	--	--	0.7	5.0	--
17...	5.4	0.4	1.1	26	24	1.6	0.2	5.3	70
MAY									
14...	62	2	4.7	96	290	20	0.8	5.1	550
JUN									
19...	--	--	--	16	--	--	0.1	4.7	--
JUL									
23...	--	--	--	88	--	--	0.4	5.2	--
AUG									
15...	--	--	--	93	--	--	0.5	5.0	--
SEP									
27...	--	--	--	128	--	--	0.7	5.3	--

06741520 BIG THOMPSON RIVER BELOW LOVELAND, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CYANIDE TOTAL (MG/L AS CN)
OCT 24...	0.75	67	1.96	0.14	2.10	0.32	1.5	0.92	--
NOV 29...	--	--	--	0.08	--	0.31	0.9	--	--
DEC 28...	--	--	--	0.22	--	2.10	3.5	3.00	--
JAN 24...	--	--	--	0.06	--	0.68	1.5	0.67	--
FEB 21...	--	--	--	0.16	--	2.00	3.1	0.78	<0.01
APR 02...	--	--	--	0.14	--	0.52	1.7	2.70	--
17...	0.09	76	--	<0.01	0.23	0.04	0.5	0.09	--
MAY 14...	0.75	39	3.06	0.14	3.20	0.45	1.7	2.20	<0.01
JUN 19...	--	--	--	0.02	--	0.06	0.6	0.09	--
JUL 23...	--	--	--	0.11	--	0.30	1.0	0.60	--
AUG 15...	--	--	--	0.10	--	0.28	1.2	0.74	<0.01
SEP 27...	--	--	--	0.40	--	2.80	3.7	2.00	--

DATE	TIME	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)
OCT 24...	15:00	<10	--	1	2	5	--	37
NOV 29...	14:00	90	<1	<1	12	4	140	--
DEC 28...	15:00	70	--	<1	2	6	--	51
JAN 24...	15:00	180	--	<1	3	3	--	39
FEB 21...	15:00	--	<1	<1	3	8	2000	740
APR 02...	15:00	100	--	<1	2	11	--	60
17...	15:00	840	--	<1	2	4	--	61
MAY 14...	13:00	--	<1	1	2	6	290	47
JUN 19...	15:30	1000	--	1	4	10	--	64
JUL 23...	13:00	410	--	<1	2	5	--	18
AUG 15...	13:00	420	--	2	2	5	--	10
SEP 27...	15:00	60	--	1	7	3	--	39

06741520 BIG THOMPSON RIVER BELOW LOVELAND, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
OCT							
24...	<1	--	25	--	--	--	20
NOV							
29...	3	30	--	<0.1	6	3	<10
DEC							
28...	<1	--	89	--	--	--	20
JAN							
24...	<1	--	23	--	--	--	20
FEB							
21...	5	90	77	<0.1	16	5	20
APR							
02...	<1	--	44	--	--	--	10
17...	1	--	5	--	--	--	10
MAY							
14...	2	40	26	0.1	<1	6	20
JUN							
19...	120	--	5	--	--	--	20
JUL							
23...	<1	--	20	--	--	--	30
AUG							
15...	1	--	14	--	--	--	20
SEP							
27...	1	--	28	--	--	--	30

06742500 CARTER LAKE NEAR BERTHOUD, CO

LOCATION.--Lat 40°19'28", long 105°12'41", in SE¼ sec.10, T.4 N., R.70 W., Larimer County, Hydrologic Unit 10190006, in hoist house 293 ft from right abutment of Carter Lake Dam on Dry Creek, 7.0 mi west of Berthoud, and 8.9 mi upstream from mouth. Water-quality sampling site near center of reservoir.

WATER-CONTENTS RECORDS

PERIOD OF RECORD.--March 1954 to current year.

GAGE.--Nonrecording gage read at irregular intervals from 1 to 13 days. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations above National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by an earth and rockfill dam and dikes enlarging the natural basin of Carter Lake. Storage began in February 1954. Usable capacity, 113,500 acre-ft between elevations 5,618.00 ft, trashrack sill at outlet, and 5,763.00 ft, maximum water surface, 6 ft below crest of dam. Dead storage, 3,310 acre-ft. Figures given represent usable contents. Water diverted from Colorado River basin through Alva B. Adams tunnel is pumped from Flatiron Reservoir into Carter Lake for supplemental irrigation supply to Little Thompson River and St. Vrain and Boulder Creek basins. Water above elevation 5,620 ft may be released for return to Flatiron Reservoir where pump turbines can operate in reverse to generate power and water can be used for irrigation in Big Thompson or Cache la Poudre River basins.

COOPERATION.--Records provided by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 109,100 acre-ft, Apr. 27-29, 1971, elevation, 5,759.12 ft; minimum observed since appreciable storage was attained, 960 acre-ft, Oct. 25, 1954, elevation, 5,621.40 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 108,800 acre-ft June 11, elevation, 5,758.86 ft; minimum contents, 41,120 acre-ft, Sept. 30, elevation, 5,690.86 ft.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.	5,739.64	87,550	-
Oct. 31.	5,742.46	90,560	+3,010
Nov. 30.	5,747.88	96,460	+5,900
Dec. 31.	5,746.02	94,420	-2,040
CAL YR 1984.			+15,430
Jan. 31.	5,745.22	93,550	-870
Feb. 28.	5,751.48	100,400	+6,850
Mar. 31.	5,755.06	103,300	+2,900
Apr. 30.	5,749.42	98,150	-5,150
May 31.	5,757.76	107,500	+9,350
June 30.	5,744.58	92,850	-14,650
July 31.	5,728.94	76,400	-16,450
Aug. 31.	5,704.28	52,690	-23,710
Sept. 30.	5,760.86	41,120	-11,570
WTR YR 1985			-46,431

06742500 CARTER LAKE NEAR BERTHOUD, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1970 to current year.

REMARKS.--Samples collected at various depths near south end of reservoir. Reservoir storage represents usable contents. A complete taxonomic identification with cell counts for phytoplankton available in district office.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)
MAY						
10...	10:40	0.1	70	7.4	14.0	9.0
10...	10:41	5.0	65	7.6	13.0	9.3
10...	10:42	10.0	65	7.7	13.0	9.5
10...	10:43	20.0	65	7.8	7.5	11.0
10...	10:44	25.0	65	8.0	7.0	10.6
10...	10:45	30.0	65	8.1	6.5	10.8
10...	10:46	40.0	70	8.1	6.0	10.6
10...	10:47	50.0	65	8.0	6.0	10.6
10...	10:48	60.0	65	8.0	5.5	10.6
10...	10:49	70.0	65	7.9	5.5	10.6
10...	10:50	75.0	65	7.9	5.0	10.6
10...	10:51	80.0	65	7.9	5.0	10.7
10...	10:52	90.0	65	7.9	5.0	10.6
10...	10:53	100	65	7.9	5.0	10.7
10...	10:54	110	65	7.9	5.0	10.6
10...	10:55	120	65	7.9	5.0	10.5
10...	10:56	125	65	7.9	5.0	10.4
10...	10:57	130	65	8.0	5.0	10.4
10...	10:58	140	65	8.0	5.0	10.4
JUL						
24...	10:08	0.1	72	8.4	21.0	7.0
24...	10:09	5.0	72	8.3	21.0	7.2
24...	10:10	10.0	73	8.3	21.0	7.2
24...	10:11	20.0	72	8.4	20.0	7.4
24...	10:12	25.0	72	8.4	15.0	7.3
24...	10:13	30.0	71	8.4	12.5	6.8
24...	10:14	40.0	68	8.2	12.5	6.5
24...	10:15	50.0	64	8.2	8.0	6.6
24...	10:16	60.0	61	8.2	8.0	6.8
24...	10:17	70.0	62	8.1	7.5	6.8
24...	10:18	75.0	61	8.1	7.5	6.9
24...	10:19	80.0	61	8.1	7.0	6.9
24...	10:20	90.0	61	8.1	7.0	7.0
24...	10:21	100	61	8.1	7.0	6.8
24...	10:22	110	61	8.1	7.0	6.6
SEP						
05...	09:50	0.1	73	7.9	20.5	7.0
05...	09:51	5.0	74	7.9	20.0	6.9
05...	09:52	10.0	74	8.0	20.0	7.1
05...	09:53	20.0	73	8.0	20.0	7.2
05...	09:54	25.0	73	8.0	19.5	6.8
05...	09:55	30.0	74	8.1	17.0	5.8
05...	09:56	40.0	71	8.0	15.0	5.3
05...	09:57	50.0	67	7.9	10.0	5.5
05...	09:58	60.0	62	7.9	8.5	5.8
05...	09:59	70.0	60	7.8	8.0	5.8
05...	10:00	75.0	58	7.8	7.5	5.9
05...	10:01	80.0	58	7.7	7.5	6.0
05...	10:02	90.0	59	7.7	7.5	5.7

DATE	TIME	SAMPLING DEPTH (FEET)	TRANSPARENCY (SECCHI DISK) (IN)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	ALGAL GROWTH POTENTIAL, BOTTLE TEST (MG/L)	PHYTOPLANKTON, TOTAL (CELLS PER ML)
MAY 1985												
10...	10:40	0.1	118	--	--	--	--	--	--	--	--	--
JUL												
24...	10:00	0.1	84.0	K2	K1	40	<0.01	0.10	0.02	<0.01	2.7	8800
24...	10:50	110	--	--	--	39	<0.01	<0.10	0.02	<0.01	--	--
SEP												
05...	09:50	0.1	96.0	--	--	--	--	--	--	--	--	--

K BASED ON NON-IDEAL COLONY COUNT.

06746095 JOE WRIGHT CREEK ABOVE JOE WRIGHT RESERVOIR, CO

LOCATION.--Lat 40°32'24", long 105°52'56", in SE¼SE¼ sec.26, T.7 N., R.76 W., Larimer County, Hydrologic Unit 10190007, on left bank 150 ft below unnamed tributary and Colorado Highway 14 culvert crossing, 1.5 mi northeast of Cameron Pass, 1.5 mi southwest of Joe Wright Dam, and 8 mi east of Gould.

DRAINAGE AREA.--3.01 mi².

PERIOD OF RECORD.--October 1978 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 9,990 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1-4, 10-12, Oct. 15 to May 1, May 5, 11-14, 25, June 21 to July 2. Records good except for estimated daily discharges, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--7 years, 7.08 ft³/s; 5,130 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 238 ft³/s, July 7, 1983, gage height, 2.20 ft; maximum gage height, 5.41 ft, May 27, 1983 (backwater from ice); minimum daily discharge, 0.20 ft³/s, Jan. 30-Apr. 4, 1979, Feb. 9 to Apr. 9, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 103 ft³/s at 1600 June 8, gage height, 1.52 ft; maximum gage height, 2.60 ft at 1900 May 25 (backwater from ice); minimum daily discharge 0.35 ft³/s, Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	1.9	1.0	.80	.60	.55	.52	1.4	22	12	2.9	1.1
2	2.6	1.7	1.0	.80	.60	.55	.52	1.5	23	12	4.6	1.1
3	2.5	1.6	1.0	.80	.60	.55	.52	2.8	25	11	3.0	1.0
4	3.0	1.5	1.0	.80	.60	.55	.52	6.0	27	10	2.6	.94
5	8.1	1.5	1.0	.80	.60	.55	.52	7.0	30	9.8	2.4	.91
6	6.0	1.5	1.0	.80	.60	.52	.50	5.2	38	9.8	2.3	.84
7	4.5	1.5	1.0	.80	.60	.52	.50	3.6	58	9.3	2.2	.86
8	4.5	1.5	1.0	.80	.60	.52	.50	7.3	76	8.2	2.2	.85
9	4.3	1.5	1.0	.80	.60	.52	.50	11	68	7.8	2.5	.78
10	3.4	1.5	1.0	.70	.60	.52	.50	14	57	7.1	2.0	.75
11	2.5	1.5	1.0	.70	.60	.52	.50	16	45	10	2.7	1.5
12	2.5	1.5	1.0	.70	.60	.52	.50	13	42	7.8	3.9	1.3
13	5.1	1.5	1.0	.70	.60	.52	.50	10	42	7.6	1.9	.92
14	4.5	1.5	1.0	.70	.60	.52	.50	7.0	41	6.1	1.7	.82
15	3.5	1.3	1.0	.70	.60	.52	.60	4.5	41	12	1.6	2.3
16	2.5	1.3	.90	.70	.55	.52	.76	4.4	39	19	1.5	1.1
17	2.2	1.3	.90	.70	.55	.52	1.0	5.2	41	18	1.5	.99
18	2.0	1.3	.90	.70	.55	.52	1.4	5.5	40	19	1.7	.96
19	2.0	1.3	.90	.70	.55	.52	1.6	5.3	38	25	1.6	1.0
20	2.0	1.3	.90	.70	.55	.52	1.5	6.6	37	24	1.4	.94
21	2.0	1.3	.90	.60	.55	.52	1.5	8.2	36	21	1.4	.88
22	2.0	1.1	.90	.60	.55	.52	1.4	12	35	19	1.3	1.0
23	2.0	1.1	.90	.60	.55	.52	1.3	14	34	22	1.2	1.2
24	2.0	1.1	.90	.60	.55	.52	1.2	19	32	21	1.2	1.7
25	2.0	1.1	.90	.60	.55	.52	1.1	26	37	16	1.1	1.0
26	2.0	1.1	.90	.60	.55	.52	1.0	29	30	4.8	1.1	1.2
27	2.0	1.1	.90	.60	.55	.52	1.1	32	23	3.7	1.0	2.3
28	2.0	1.1	.90	.60	.55	.52	1.2	42	19	3.4	1.1	1.3
29	2.0	1.1	.90	.60	---	.52	1.2	37	15	4.6	1.0	.78
30	2.0	1.1	.90	.60	---	.52	1.3	28	13	4.9	.92	.35
31	2.0	---	.90	.60	---	.52	---	24	---	3.4	.91	---
TOTAL	92.1	40.7	29.40	21.50	16.15	16.27	26.26	408.5	1104	369.3	58.43	32.67
MEAN	2.97	1.36	.95	.69	.58	.52	.88	13.2	36.8	11.9	1.88	1.09
MAX	8.1	1.9	1.0	.80	.60	.55	1.6	42	76	25	4.6	2.3
MIN	2.0	1.1	.90	.60	.55	.52	.50	1.4	13	3.4	.91	.35
AC-FT	183	81	58	43	32	32	52	810	2190	733	116	65

CAL YR 1984	TOTAL	2719.46	MEAN	7.43	MAX	69	MIN	.35	AC-FT	5390
WTR YR 1985	TOTAL	2215.28	MEAN	6.07	MAX	76	MIN	.35	AC-FT	4390

NOTE.--NO GAGE-HEIGHT RECORD OCT. 15 TO MAR. 27.

06746110 JOE WRIGHT CREEK BELOW JOE WRIGHT RESERVOIR, CO

LOCATION.--Lat 40°33'43", long 105°52'09", in SE¼NE¼ sec.24, T.7 N., R.76 W., Larimer County, Hydrologic Unit 10190007, on left bank 500 ft downstream from unnamed tributary, 2,000 ft downstream from Joe Wright Dam, and 3 mi southwest of Chambers Lake.

DRAINAGE AREA.--6.90 mi².

PERIOD OF RECORD.--June 1978 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 9,710 ft, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 16 to Mar. 27, Apr. 11-16. Records fair except for estimated daily discharges, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--7 years, 11.6 ft³/s; 8,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 145 ft³/s, June 30, 1978, gage height, 2.46 ft; minimum daily, 0.22 ft³/s, Apr. 14, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 128 ft³/s at 1630 June 8, gage height, 2.36 ft; minimum daily, 0.22 ft³/s, Apr. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	4.3	.76	.50	.42	.30	.25	.91	32	20	12	54
2	3.4	4.3	.76	.50	.42	.30	.30	1.1	32	20	12	54
3	2.1	4.3	.76	.50	.40	.30	.30	1.3	32	20	12	54
4	1.8	4.3	.76	.50	.40	.30	.30	1.7	33	20	9.4	55
5	1.9	4.3	.76	.50	.40	.30	.30	1.9	35	20	7.1	56
6	1.9	4.3	.76	.50	.40	.30	.30	1.9	50	20	6.3	56
7	1.8	4.3	.76	.50	.40	.30	.30	2.0	82	18	5.4	56
8	2.4	4.3	.76	.50	.40	.30	.30	2.4	116	17	5.2	56
9	3.6	4.3	.76	.50	.40	.30	.30	2.5	116	15	5.5	55
10	3.3	4.3	.70	.50	.40	.30	.30	3.1	89	14	5.2	44
11	3.3	4.3	.70	.45	.40	.30	.30	3.5	62	14	5.3	39
12	3.3	3.9	.70	.45	.35	.30	.30	2.2	52	13	5.8	39
13	3.4	2.9	.70	.45	.35	.30	.25	1.9	57	13	5.2	39
14	3.5	2.5	.70	.45	.35	.28	.22	1.9	59	13	5.2	41
15	3.3	2.5	.70	.45	.35	.28	.25	1.9	55	11	5.2	45
16	3.0	2.0	.70	.45	.35	.28	.30	2.0	50	20	5.2	74
17	3.0	1.5	.70	.45	.35	.28	.50	2.2	58	27	5.2	92
18	3.7	1.5	.70	.45	.35	.28	.59	2.5	57	25	5.2	64
19	4.3	1.5	.70	.45	.35	.28	.64	2.6	48	25	5.1	53
20	4.3	1.0	.70	.45	.35	.28	.60	3.2	43	24	5.6	56
21	4.2	1.0	.60	.42	.30	.28	.56	3.2	43	26	4.5	58
22	4.0	1.0	.60	.42	.30	.28	.55	3.1	43	27	3.7	58
23	4.2	1.0	.60	.42	.30	.28	.56	3.8	41	27	3.6	58
24	4.5	1.0	.60	.42	.30	.28	.53	4.5	36	27	3.6	22
25	4.3	1.0	.60	.42	.30	.28	.45	5.2	33	24	2.7	1.2
26	4.3	.86	.60	.42	.30	.28	.40	5.5	33	13	20	1.2
27	4.3	.86	.60	.42	.30	.28	.52	6.3	34	9.1	54	1.2
28	4.3	.86	.60	.42	.30	.30	.69	7.3	31	6.7	55	1.2
29	4.3	.86	.60	.42	---	.25	.80	26	23	9.5	55	1.4
30	4.3	.86	.60	.42	---	.25	.81	46	20	9.7	55	1.4
31	4.3	---	.60	.42	---	.25	---	43	---	12	55	---
TOTAL	111.1	75.90	21.14	14.12	9.99	8.87	12.77	196.61	1495	560.0	445.2	1285.6
MEAN	3.58	2.53	.68	.46	.36	.29	.43	6.34	49.8	18.1	14.4	42.9
MAX	6.8	4.3	.76	.50	.42	.30	.81	46	116	27	55	92
MIN	1.8	.86	.60	.42	.30	.25	.22	.91	20	6.7	2.7	1.2
AC-FT	220	151	42	28	20	18	25	390	2970	1110	883	2550

CAL YR 1984 TOTAL 5568.88 MEAN 15.2 MAX 114 MIN .30 AC-FT 11050
WTR YR 1985 TOTAL 4236.30 MEAN 11.6 MAX 116 MIN .22 AC-FT 8400

NOTE.--NO GAGE-HEIGHT RECORD NOV. 16 TO MAR. 28.

06752000 CACHE LA POUDRE RIVER AT MOUTH OF CANYON, NEAR FORT COLLINS, CO

LOCATION.--Lat 40°39'52", long 105°13'26", in NW¼ sec.15, T.8 N., R.70 W., Larimer County, Hydrologic Unit 10190007, on left bank at mouth of canyon, 0.5 mi downstream from headgate of Poudre Valley Canal, 1.2 mi upstream from Lewstone Creek, and 9.3 mi northwest of courthouse in Fort Collins.

DRAINAGE AREA.--1,056 mi².

PERIOD OF RECORD.--Streamflow records, June to August 1881, May to July 1883, October 1883 to current year. Monthly discharge only for some periods, published in WSP 1310. Records for Mar. 23 to Apr. 30 and July 4 to Aug. 20, 1883, published in WSP 9, have been found to be unreliable and should not be used. Prior to 1902, published as Cache la Poudre Creek or River at or near Fort Collins. Water-quality data available, June 1962 to October 1965, October 1971 to September 1982.

REVISED RECORDS.--WSP 1310: 1885-87, 1889, 1892, 1894-96, 1934. WSP 1730: 1960, drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Elevation of gage is 5,220 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 2 to Mar. 13. Records good except for estimared daily discharges, which are poor. Natural flow of stream affected bytransbasin and transmountain diversions (see elsewhere in this report), diversions above station for irrigation of about 50,000 acres, most of which is below station 79,220 acre-ft during current year, and diversions for municipal use 8,190 acre-ft during current year.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge not determined, occurred May 20, 1904; maximum discharge determined, 21,000 ft³/s, June 9, 1891 (from reports of State Engineer of Colorado), caused by failure of Chambers Lake Dam; minimum daily discharge, 1.6 ft³/s, Nov. 20, 28, 1948, caused by diversion of Poudre Valley Canal, 0.5 mi upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,520 ft³/s at 0500 June 9, gage height, 6.00 ft; minimum daily, 24 ft³/s, Apr. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	125	87	57	118	75	40	55	91	926	540	255	95
2	150	79	65	110	70	46	55	59	1050	520	185	61
3	108	81	65	94	65	50	58	96	1090	494	235	74
4	123	81	65	93	65	60	61	169	1200	507	449	89
5	186	67	65	98	65	65	58	214	1250	507	302	91
6	194	79	65	108	65	75	55	310	1410	514	390	72
7	158	85	65	106	65	82	54	222	1960	500	390	42
8	143	79	65	105	65	80	49	192	2700	613	401	31
9	275	79	65	103	85	75	54	399	2980	552	390	90
10	474	67	65	80	100	72	63	570	2470	474	407	158
11	236	68	65	68	100	70	76	620	1890	474	425	172
12	101	79	65	66	100	80	79	599	1350	443	413	169
13	108	77	65	65	100	85	79	655	1410	407	449	162
14	118	237	65	63	100	90	70	572	1420	449	368	134
15	131	443	65	77	100	96	61	533	1390	624	290	103
16	103	212	65	98	85	77	41	540	1500	620	290	66
17	97	79	522	97	81	76	40	578	1560	437	230	95
18	208	72	523	95	80	79	57	533	1480	378	190	118
19	111	46	75	94	75	76	60	552	1240	574	230	118
20	118	48	75	93	70	70	61	648	1020	462	174	97
21	120	48	82	91	65	70	42	662	980	312	149	93
22	115	70	85	90	45	68	38	708	980	287	152	93
23	115	79	85	83	44	61	37	648	935	552	149	103
24	97	76	85	87	47	67	24	685	700	552	108	103
25	103	79	85	85	40	77	28	778	842	474	120	114
26	111	70	102	84	37	74	46	989	874	479	111	72
27	106	60	110	82	37	70	78	1090	700	449	111	65
28	97	350	110	80	37	60	106	1140	474	449	183	70
29	97	481	110	79	---	61	104	1140	407	419	208	67
30	93	120	110	77	---	45	137	1270	488	437	245	54
31	87	---	117	76	---	57	---	998	---	449	146	---
TOTAL	4408	3578	3308	2745	1963	2154	1826	18260	38676	14948	8145	2871
MEAN	142	119	107	88.5	70.1	69.5	60.9	589	1289	482	263	95.7
MAX	474	481	523	118	100	96	137	1270	2980	624	449	172
MIN	87	46	57	63	37	40	24	59	407	287	108	31
AC-FT	8740	7100	6560	5440	3890	4270	3620	36220	76710	29650	16160	5690

CAL YR 1984 TOTAL 194287 MEAN 531 MAX 3580 MIN 36 AC-FT 385400
WTR YR 1985 TOTAL 102882 MEAN 282 MAX 2930 MIN 24 AC-FT 204100

06752258 CACHE LA POUDRE RIVER AT SHIELDS STREET AT FORT COLLINS, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 40°36'11", long 105°05'43", in NE¼SE¼ sec.3, T.7 N., R.69 W., Larimer County, Hydrologic Unit 10190007, at Shields Street bridge, 0.8 mi downstream from Larimer-Weld Canal and 1.0 mi northwest of Fort Collins.

PERIOD OF RECORD.--October 1979 to current year.

WATER QUALITY DATA,WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT 23...	10:40	94	181	8.1	4.0	11.0	82	24	5.4	5.2	0.3	1.2
NOV 08...	11:45	77	196	7.9	5.0	11.4	92	27	5.9	--	--	--
DEC 05...	17:00	23	345	8.2	1.0	11.9	170	50	11	--	--	--
JAN 29...	11:00	106	213	7.6	0.0	12.2	61	18	3.9	--	--	--
FEB 27...	10:40	31	309	7.6	2.0	12.7	160	47	10	--	--	--
MAR 26...	13:00	5.9	370	7.9	12.5	10.2	180	49	13	--	--	--
APR 23...	14:40	21	168	8.6	14.5	10.1	87	26	5.4	--	--	--
MAY 24...	12:30	363	75	8.2	13.0	9.5	30	9.0	1.8	2.5	0.2	0.9
JUN 20...	10:00	869	55	7.8	12.0	9.6	23	7.2	1.3	--	--	--
JUL 16...	17:15	62	93	8.7	20.0	8.0	37	11	2.4	--	--	--
AUG 15...	14:00	48	86	8.9	21.0	7.2	37	11	2.4	--	--	--
SEP 13...	12:30	101	130	7.8	16.0	7.6	66	19	4.4	--	--	--

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)
OCT 23...	67	22	2.2	0.2	8.5	110	0.15	28	0.20	0.01	<0.01
NOV 08...	72	--	--	0.3	8.2	--	--	--	--	0.03	<0.01
DEC 05...	117	--	--	0.4	9.3	--	--	--	--	0.02	0.01
JAN 29...	84	--	--	0.5	6.1	--	--	--	--	0.04	0.01
FEB 27...	110	--	--	0.5	9.0	--	--	--	--	0.05	0.01
MAR 26...	141	--	--	0.4	8.0	--	--	--	--	0.07	<0.01
APR 23...	61	--	--	0.3	5.9	--	--	--	--	0.05	0.01
MAY 24...	25	9.1	0.9	0.2	6.7	46	0.06	45	<0.10	0.06	0.03
JUN 20...	19	--	--	0.1	5.9	--	--	--	--	0.04	0.01
JUL 16...	30	--	--	0.2	6.0	--	--	--	--	0.03	0.01
AUG 15...	29	--	--	0.2	5.5	--	--	--	--	0.04	0.01
SEP 13...	44	--	--	0.2	7.8	--	--	--	--	0.04	<0.01

06752258 CACHE LA POUDRE RIVER AT SHIELDS STREET AT FT COLLINS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)
OCT								
23...	10:40	60	--	<1	14	2	--	54
NOV								
08...	11:45	--	<1	<1	<1	4	90	43
DEC								
05...	17:00	100	--	<1	<1	2	--	33
JAN								
29...	11:00	80	--	<1	3	8	--	24
FEB								
27...	10:40	--	<1	<1	1	4	100	32
MAR								
26...	13:00	310	--	<1	<1	3	--	36
APR								
23...	14:40	270	--	<1	<1	3	--	50
MAY								
24...	12:30	--	<1	1	5	10	640	77
JUN								
20...	10:00	470	--	<1	4	7	--	69
JUL								
16...	17:15	260	--	<1	4	4	--	58
AUG								
15...	14:00	--	1	<1	3	4	260	58
SEP								
13...	12:30	110	--	2	2	2	--	64

DATE	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
OCT							
23...	2	--	9	--	--	--	<10
NOV							
08...	<1	20	10	<0.1	2	<1	<10
DEC							
05...	2	--	25	--	--	--	10
JAN							
29...	1	--	7	--	--	--	20
FEB							
27...	<1	70	27	<0.1	<1	<1	<10
MAR							
26...	3	--	51	--	--	--	<10
APR							
23...	2	--	14	--	--	--	10
MAY							
24...	2	20	3	0.1	4	<1	<10
JUN							
20...	2	--	4	--	--	--	30
JUL							
16...	2	--	7	--	--	--	<10
AUG							
15...	1	20	4	<0.1	1	<1	<10
SEP							
13...	1	--	7	--	--	--	20

06752260 CACHE LA POUDRE RIVER AT FORT COLLINS, CO

LOCATION.--Lat 40°35'17", long 105°04'08", in NE¼SW¼ sec.12, T.7 N., R.69 W., Larimer County, Hydrologic Unit 10190007, on left bank 150 ft downstream from Lincoln Ave. Bridge, and 2,200 ft east of intersection of College Ave. (U.S. Highway 287) and Mountain Ave. in Fort Collins.

DRAINAGE AREA.--1,127 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1975 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,940 ft, from topographic map.

REMARKS.--Estimated daily discharges: July 9-16. Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by transmountain and transbasin diversions, storage reservoirs, power developments, diversion for municipal supply, diversions above station for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,660 ft³/s June 21, 1983, gage height, 8.31 ft; maximum gage height, 8.84 ft, Aug. 1, 1976, from floodmarks; minimum daily discharge, 0.77 ft³/s Sept. 16, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,270 ft³/s at 0615 June 9, gage height, 4.97 ft; minimum daily, 2.0 ft³/s, Aug. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	96	85	111	118	28	7.0	38	93	141	80	22
2	37	92	50	112	119	31	7.8	36	296	89	50	16
3	25	92	40	95	100	48	8.3	41	388	123	111	20
4	52	98	30	89	101	71	9.3	88	670	155	106	18
5	158	86	27	86	95	78	7.5	123	843	194	39	44
6	161	82	27	98	108	98	2.8	179	925	211	34	37
7	136	90	51	96	108	105	4.4	111	1240	165	19	22
8	126	84	81	92	110	66	8.0	63	1670	111	28	17
9	178	83	87	95	103	50	10	109	1870	105	70	26
10	283	81	80	92	133	50	103	213	1430	35	54	92
11	172	81	78	71	138	56	258	211	940	37	38	108
12	20	88	77	62	136	59	262	111	329	43	48	103
13	10	88	69	69	127	65	147	69	219	62	48	99
14	25	151	57	69	124	79	7.7	55	211	80	29	82
15	55	416	50	70	119	85	7.7	61	120	60	23	48
16	37	263	67	96	119	88	6.9	72	153	40	56	35
17	80	78	172	104	115	77	6.4	81	178	28	55	22
18	96	84	510	105	104	77	6.7	168	267	37	24	32
19	101	56	358	96	102	76	70	237	510	185	2.0	16
20	98	54	80	102	91	45	126	193	704	178	4.6	6.0
21	100	51	59	105	87	8.8	123	173	691	132	4.3	4.7
22	97	65	60	112	54	9.1	120	273	673	48	9.2	4.4
23	97	87	76	114	48	8.4	59	259	669	111	31	4.3
24	94	84	73	123	39	7.6	19	302	443	72	25	3.9
25	98	88	64	121	37	6.2	46	339	465	40	15	4.6
26	102	92	92	118	28	4.3	194	333	595	9.8	12	6.1
27	98	64	102	115	25	5.4	114	319	718	33	8.3	5.8
28	99	198	101	112	25	5.0	92	354	869	9.3	8.5	7.8
29	88	476	106	107	---	6.0	68	203	754	33	15	4.9
30	91	214	103	95	---	7.2	28	246	426	34	50	5.4
31	84	---	104	99	---	4.7	---	73	---	88	77	---
TOTAL	2918	3662	3016	3031	2613	1404.7	1929.5	5133	19359	2689.1	1173.9	916.9
MEAN	94.1	122	97.3	97.8	93.3	45.3	64.3	166	645	86.7	37.9	30.6
MAX	283	476	510	123	138	105	262	354	1870	211	111	108
MIN	10	51	27	62	25	4.3	2.8	36	93	9.3	2.0	3.9
AC-FT	5790	7260	5980	6010	5180	2790	3830	10180	38400	5330	2330	1820

CAL YR 1984 TOTAL 133733 MEAN 365 MAX 2890 MIN 10 AC-FT 265300
WTR YR 1985 TOTAL 47846.1 MEAN 131 MAX 1870 MIN 2.0 AC-FT 94900

06752260 CACHE LA POUDRE RIVER AT FORT COLLINS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1975 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT 19...	11:00	110	173	8.0	3.5	11.2	76	22	5.0	5.1	0.3	1.1
NOV 08...	14:30	81	211	8.2	6.0	11.4	96	28	6.4	--	--	--
DEC 06...	09:30	16	412	8.2	0.5	11.9	190	53	14	--	--	--
JAN 23...	14:00	118	226	7.8	0.0	13.1	110	32	6.9	--	--	--
FEB 26...	15:10	26	322	7.9	3.0	13.4	160	46	11	--	--	--
MAR 27...	09:30	5.2	520	7.7	7.0	9.0	240	68	18	--	--	--
APR 23...	13:00	23	135	8.2	12.5	11.2	68	20	4.3	--	--	--
MAY 20...	14:45	173	97	8.0	13.5	9.8	38	11	2.5	3.4	0.3	1.0
JUN 20...	15:45	835	55	7.5	13.5	9.1	25	7.9	1.4	--	--	--
JUL 17...	08:55	16	175	8.0	18.0	7.4	72	20	5.4	--	--	--
AUG 15...	11:10	11	200	8.3	18.0	9.4	89	25	6.5	--	--	--
SEP 14...	11:15	80	180	7.8	19.0	8.6	78	23	5.1	--	--	--

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)
OCT 19...	60	23	2.2	0.2	8.4	100	0.14	31	0.14	0.01	0.01
NOV 08...	75	--	--	0.3	7.6	--	--	--	--	0.02	0.01
DEC 06...	142	--	--	0.4	9.0	--	--	--	--	<0.01	2.00
JAN 23...	88	--	--	0.6	11	--	--	--	--	0.03	0.01
FEB 26...	108	--	--	0.5	9.0	--	--	--	--	0.04	0.01
MAR 27...	163	--	--	0.4	7.5	--	--	--	--	0.10	<0.01
APR 23...	48	--	--	0.2	4.9	--	--	--	--	0.06	0.01
MAY 20...	32	12	1.5	0.2	6.9	58	0.08	27	<0.10	0.07	0.04
JUN 20...	21	--	--	0.1	5.7	--	--	--	--	0.06	0.02
JUL 17...	55	--	--	0.2	6.7	--	--	--	--	0.04	<0.01
AUG 15...	69	--	--	0.3	5.7	--	--	--	--	0.04	0.02
SEP 14...	58	--	--	0.2	7.6	--	--	--	--	0.02	0.01

06752260 CACHE LA POUDRE RIVER AT FORT COLLINS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)
OCT								
19...	11:00	90	--	<1	1	19	--	63
NOV								
08...	14:30	--	<1	<1	<1	4	120	49
DEC								
06...	09:30	70	--	<1	4	2	--	58
JAN								
23...	14:00	130	--	<1	21	3	--	46
FEB								
26...	15:10	--	<1	<1	1	4	100	41
MAR								
27...	09:30	3900	--	1	9	11	--	78
APR								
23...	13:00	250	--	1	4	4	--	64
MAY								
20...	14:45	--	<1	<1	3	13	430	94
JUN								
20...	15:45	500	--	<1	10	6	--	68
JUL								
17...	08:55	1200	--	1	4	4	--	64
AUG								
15...	11:10	--	1	<1	3	4	250	62
SEP								
14...	11:15	140	--	2	4	3	--	59

DATE	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
OCT							
19...	18	--	9	--	--	--	60
NOV							
08...	2	20	10	0.2	4	<1	<10
DEC							
06...	3	--	30	--	--	--	10
JAN							
23...	<1	--	18	--	--	--	<10
FEB							
26...	<1	110	21	<0.1	<1	<1	10
MAR							
27...	23	--	110	--	--	--	50
APR							
23...	3	--	13	--	--	--	20
MAY							
20...	3	20	7	<0.1	2	<1	<10
JUN							
20...	1	--	3	--	--	--	80
JUL							
17...	1	--	24	--	--	--	<10
AUG							
15...	<1	30	18	<0.1	<1	<1	<10
SEP							
14...	2	20	7	--	--	--	20

06752270 CACHE LA POUDRE RIVER BELOW FORT COLLINS, CO

LOCATION.--Lat 40°34'01", long 105°01'36", in NW¼NE¼ sec.20, T.7 N., R.68 W., Larimer County, Hydrologic Unit 10190007, 1.4 mi west of Interstate 25 on Prospect Street in Fort Collins.

PERIOD OF RECORD.--January 1978 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT 23...	12:50	85	245	8.4	4.5	11.3	110	32	7.6
NOV 09...	13:30	87	310	8.4	7.0	13.4	130	37	9.1
DEC 06...	12:15	42	582	8.3	1.5	--	230	61	18
JAN 23...	15:30	128	296	8.1	0.5	13.4	130	37	8.5
FEB 26...	13:45	47	417	8.3	4.0	15.5	190	53	13
MAR 26...	11:45	9.7	670	8.2	11.5	11.9	280	73	23
APR 24...	10:10	30	391	8.6	11.5	12.3	160	43	12
MAY 24...	10:30	320	120	8.2	11.5	10.2	45	13	3.0
JUN 19...	15:30	835	90	7.8	15.0	9.2	37	11	2.3
JUL 16...	14:15	41	530	8.5	24.5	8.8	170	46	14
AUG 15...	16:50	41	707	9.3	24.0	16.2	230	58	21
SEP 13...	14:45	123	280	8.5	19.0	9.0	110	29	8.2

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT 23...	8.1	0.3	1.4	88	31	4.0	0.3	8.1	150
NOV 09...	--	--	--	96	--	--	0.4	6.8	--
DEC 06...	--	--	--	170	--	--	0.5	8.8	--
JAN 23...	--	--	--	105	--	--	0.6	10	--
FEB 26...	--	--	--	129	--	--	0.6	8.3	--
MAR 26...	--	--	--	185	--	--	0.6	7.3	--
APR 24...	--	--	--	99	--	--	0.4	5.3	--
MAY 24...	5.6	0.4	1.1	35	14	3.9	0.2	6.6	69
JUN 19...	--	--	--	28	--	--	0.1	6.3	--
JUL 16...	--	--	--	102	--	--	0.4	7.9	--
AUG 15...	--	--	--	131	--	--	0.4	6.2	--
SEP 13...	--	--	--	71	--	--	0.3	7.8	--

06752270 CACHE LA POUDRE RIVER BELOW FORT COLLINS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)
OCT								
23...	0.2	33	--	<0.01	0.39	0.01	0.6	0.02
NOV								
09...	--	--	--	0.04	--	0.18	0.6	0.16
DEC								
06...	--	--	--	0.03	--	1.40	2.6	0.33
JAN								
23...	--	--	--	<0.01	--	0.60	1.1	0.12
FEB								
26...	--	--	--	0.03	--	0.63	1.6	0.18
MAR								
26...	--	--	--	0.06	--	2.70	3.9	0.74
APR								
24...	--	--	--	0.06	--	1.40	2.0	0.35
MAY								
24...	0.09	60	0.15	0.01	0.16	0.19	0.5	0.06
JUN								
19...	--	--	--	0.01	--	0.09	0.5	0.03
JUL								
16...	--	--	--	0.08	--	0.30	0.7	0.30
AUG								
15...	--	--	--	0.13	--	0.09	0.7	0.32
SEP								
13...	--	--	--	0.05	--	0.20	0.6	0.12

DATE	TIME	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)
OCT								
23...	12:50	1600	--	<1	6	10	--	96
NOV								
09...	13:30	--	<1	<1	5	9	320	56
DEC								
06...	12:15	110	--	<1	2	3	--	82
JAN								
23...	15:30	120	--	<1	15	4	--	39
FEB								
26...	13:45	--	<1	<1	<1	2	150	61
MAR								
26...	11:45	120	--	<1	4	4	--	78
APR								
24...	10:10	130	--	1	<1	5	--	42
MAY								
24...	10:30	--	<1	<1	4	7	620	93
JUN								
19...	15:30	810	--	<1	3	8	--	68
JUL								
16...	14:15	950	--	2	7	4	--	58
AUG								
15...	16:50	--	2	<1	1	5	190	29
SEP								
13...	14:45	140	--	2	4	3	--	59

06752270 CACHE LA POUDRE RIVER BELOW FORT COLLINS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
OCT							
23...	6	--	13	--	--	--	20
NOV							
09...	<1	30	17	0.3	5	<1	<10
DEC							
06...	1	--	43	--	--	--	20
JAN							
23...	1	--	17	--	--	--	<10
FEB							
26...	<1	130	33	<0.1	<1	<1	<10
MAR							
26...	2	--	93	--	--	--	10
APR							
24...	3	--	39	--	--	--	20
MAY							
24...	2	30	9	<0.1	4	<1	<10
JUN							
19...	3	--	5	--	--	--	70
JUL							
16...	3	--	21	--	--	--	20
AUG							
15...	2	30	11	<0.1	3	<1	20
SEP							
13...	2	--	8	--	--	--	30

06752280 CACHE LA POUDRE RIVER ABOVE BOX ELDER CREEK NEAR TIMNATH, CO

LOCATION.--Lat 40°32'56", long 105°00'28", in NW¼NE¼ sec.28, T.7 N., R.68 W., Larimer County, Hydrologic Unit 10190007, on left bank 2,100 ft upstream from Box Elder Creek, 2.0 mi upstream from Interstate Highway 25 bridge and 3.8 mi southeast of intersection of College Avenue and Prospect Street in Fort Collins.

DRAINAGE AREA.--1,245 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1979 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,860 ft, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 20 to Feb. 19. Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by transmountain and transbasin diversions, storage reservoirs, power developments, diversion for municipal supply, diversions above station for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,810 ft^3/s, June 21, 1983, gage height, 8.02 ft; minimum daily, 3.0 ft^3/s, Oct. 4, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,770 ft^3/s at 1100 June 9, gage height, 6.11 ft; minimum daily, 3.7 ft^3/s, Aug. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	78	99	124	105	57	5.7	11	14	86	18	7.0
2	49	70	66	147	100	59	7.0	8.3	132	34	6.5	7.0
3	29	70	53	109	90	61	7.0	7.7	243	20	19	7.0
4	23	74	46	95	90	84	6.4	11	584	53	12	7.1
5	32	77	40	98	90	68	6.4	42	917	82	7.0	8.3
6	47	85	43	118	90	68	6.4	100	999	136	5.0	8.3
7	33	74	51	112	100	79	7.0	54	1360	69	4.4	8.3
8	30	95	84	115	120	53	7.0	11	2020	31	4.4	8.3
9	49	87	102	112	112	30	7.4	29	2360	10	5.0	8.3
10	179	87	97	121	110	29	18	129	1820	7.7	5.0	12
11	148	82	87	87	115	30	117	133	1250	7.8	5.0	26
12	17	97	90	103	118	31	124	47	507	8.3	4.7	35
13	10	103	90	90	110	29	79	10	276	18	4.4	26
14	8.4	112	83	82	105	37	12	7.0	300	49	4.4	11
15	16	400	70	87	100	26	7.7	6.4	139	30	4.4	7.7
16	16	310	77	113	95	10	7.0	6.4	155	9.2	4.4	6.7
17	13	97	127	130	92	9.0	7.0	7.7	207	5.7	4.4	5.7
18	18	95	467	134	90	9.0	7.2	53	276	5.7	4.4	5.7
19	44	70	495	127	90	9.0	13	117	547	76	4.4	5.7
20	63	61	141	110	90	9.0	40	84	731	98	4.4	5.7
21	70	61	90	97	100	7.5	42	39	670	14	3.7	5.7
22	77	68	82	90	90	6.4	35	70	627	12	3.8	5.7
23	84	95	87	90	79	5.7	22	109	642	20	4.4	5.7
24	84	95	77	90	74	5.7	7.1	106	502	7.8	5.0	6.4
25	82	100	104	90	74	5.7	7.7	157	489	6.4	5.0	6.4
26	82	103	100	90	63	5.7	99	162	743	5.7	5.7	6.3
27	71	87	118	90	55	6.4	47	169	776	5.7	5.7	5.7
28	79	124	118	90	53	5.7	16	229	1080	4.4	6.4	5.7
29	66	452	121	96	---	5.7	34	82	850	4.4	6.4	5.7
30	66	256	115	100	---	5.7	39	100	508	5.0	6.4	5.7
31	68	---	118	110	---	6.4	---	19	---	9.0	7.0	---
TOTAL	1706.4	3665	3538	3247	2600	853.6	841.0	2116.5	21724	930.8	190.7	275.8
MEAN	55.0	122	114	105	92.9	27.5	28.0	68.3	724	30.0	6.15	9.19
MAX	179	452	495	147	120	84	124	229	2360	136	19	35
MIN	8.4	61	40	82	53	5.7	5.7	6.4	14	4.4	3.7	5.7
AC-FT	3380	7270	7020	6440	5160	1690	1670	4200	43090	1850	378	547

CAL YR 1984 TOTAL 135529.4 MEAN 370 MAX 2640 MIN 8.4 AC-FT 268800
WTR YR 1985 TOTAL 41688.8 MEAN 114 MAX 2360 MIN 3.7 AC-FT 82690

06752280 CACHE LA POUDRE RIVER ABOVE BOX ELDER CREEK NEAR TIMNATH, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
OCT 19...	13:40	43	808	8.4	7.5	12.1	350	93	29
NOV 09...	10:45	88	434	8.2	6.0	11.7	180	50	14
DEC 06...	14:30	43	738	8.6	1.5	--	330	89	27
JAN 23...	11:30	88	393	7.6	0.0	12.4	170	48	12
FEB 26...	11:30	65	620	7.7	4.0	10.6	230	63	18
MAR 26...	10:15	5.7	1560	8.1	10.0	9.9	770	200	66
APR 23...	10:30	35	408	8.2	10.0	10.7	190	50	15
MAY 20...	11:50	114	226	8.1	11.0	9.3	90	25	6.6
JUN 19...	11:45	390	140	8.1	14.5	8.3	68	19	4.9
JUL 16...	11:45	7.6	900	7.7	24.5	8.2	460	120	40
AUG 16...	10:00	4.3	1910	8.2	21.0	11.8	970	250	85
SEP 11...	11:00	21	950	8.0	18.5	6.0	420	110	36

DATE	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
OCT 19...	33	0.8	2.8	155	270	11	0.5	8.4	540
NOV 09...	--	--	--	105	--	--	0.4	6.2	--
DEC 06...	--	--	--	179	--	--	0.5	8.8	--
JAN 23...	--	--	--	114	--	--	0.7	10	--
FEB 26...	--	--	--	155	--	--	0.9	9.9	--
MAR 26...	--	--	--	181	--	--	0.7	7.5	--
APR 23...	--	--	--	67	--	--	0.3	5.5	--
MAY 20...	8.4	0.4	1.2	48	49	3.5	0.2	7.0	130
JUN 19...	--	--	--	35	--	--	0.2	7.7	--
JUL 16...	--	--	--	109	--	--	0.5	7.8	--
AUG 16...	--	--	--	164	--	--	0.9	9.0	--
SEP 11...	--	--	--	116	--	--	0.5	8.2	--

06752280 CACHE LA POUDRE RIVER ABOVE BOX ELDER CREEK NEAR TIMNATH, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
OCT 19...	0.74	63	1.18	0.02	1.20	0.29	0.8	0.11
NOV 09...	--	--	--	0.04	--	0.16	0.5	0.12
DEC 06...	--	--	--	0.03	--	0.70	1.9	0.20
JAN 23...	--	--	--	<0.01	--	0.55	0.9	0.18
FEB 26...	--	--	--	0.03	--	6.60	11	1.90
MAR 26...	--	--	--	0.05	--	0.46	1.4	0.10
APR 23...	--	--	--	0.02	--	0.34	1.1	0.10
MAY 20...	0.18	40	0.49	0.02	0.51	0.20	0.7	0.11
JUN 19...	--	--	--	0.02	--	0.11	0.6	0.04
JUL 16...	--	--	--	0.03	--	0.06	1.0	0.01
AUG 16...	--	--	--	0.04	--	0.11	1.0	0.02
SEP 11...	--	--	--	0.05	--	0.20	1.1	0.06

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)
OCT 19...	13:40	200	--	<1	3	3	--	47
NOV 09...	10:45	--	<1	1	1	5	190	63
DEC 06...	14:30	90	--	<1	34	2	--	74
JAN 23...	11:30	130	--	2	<1	3	--	49
FEB 26...	11:30	--	<1	<1	3	7	190	47
MAR 26...	10:15	190	--	<1	2	3	--	37
APR 23...	10:30	290	--	<1	1	4	--	37
MAY 20...	11:50	--	<1	<1	9	7	2500	48
JUN 19...	11:45	890	--	<1	3	8	--	89
JUL 16...	11:45	790	--	3	4	6	--	29
AUG 16...	10:00	--	2	<1	1	3	630	30
SEP 11...	11:00	320	--	<1	6	4	--	33

06752280 CACHE LA POUDRE RIVER ABOVE BOX ELDER CREEK NEAR TIMNATH, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
OCT							
19...	4	--	30	--	--	--	10
NOV							
09...	2	30	20	<0.1	3	<1	<10
DEC							
06...	1	--	46	--	--	--	10
JAN							
23...	1	--	24	--	--	--	<10
FEB							
26...	<1	130	49	<0.1	<1	2	20
MAR							
26...	2	--	120	--	--	--	<10
APR							
23...	5	--	35	--	--	--	20
MAY							
20...	2	80	12	<0.1	6	1	20
JUN							
19...	3	--	29	--	--	--	30
JUL							
16...	1	--	75	--	--	--	20
AUG							
16...	1	170	79	<0[illegible]	<1	11	10
SEP							
11...	3	--	52	--	--	--	10

06752500 CACHE LA POUDRE RIVER NEAR GREELEY, CO

LOCATION.--Lat 40°25'04", long 104°38'22", in NW¼ sec.11, T.5 N., R.65 W., Weld County, Hydrologic Unit 10190007, on right bank 25 ft downstream from highway bridge, 2.9 mi east of courthouse in Greeley, and 3.0 mi upstream from mouth.

DRAINAGE AREA.--1,877 mi^2.

PERIOD OF RECORD.--Streamflow records, March to October 1903, August to November 1904, January 1914 to December 1919, June 1924 to current year. Monthly discharge only for some periods, published in WSP 1310. Water-quality data available, November 1951 to September 1952, August 1954 to August 1956, December 1963 to September 1966, October 1967 to September 1968, October 1970 to September 1982.

REVISED RECORDS.--WSP 1440: 1935, 1938(M), 1942-43. WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,610 ft, from topographic map. See WSP 1710 or 1730 for history of changes prior to Dec. 14, 1933.

REMARKS.--Estimated daily discharges: Dec. 2-7, Jan. 5-11, July 22-26. Records good except for estimated daily discharges, which are fair. Natural flow of stream affected by transmountain and transbasin diversions, storage reservoirs, power developments, diversion for municipal supply, diversions above station for irrigation of about 250,000 acres, and return flow from irrigated areas.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--66 years (water years 1915-19, 1925-85), 132 ft^3/s; 95,630 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,360 ft^3/s, June 14, 1983; gage height, 8.92 ft; maximum gage height, 8.95 ft, June 22, 1983; minimum daily discharge, 0.8 ft^3/s, Oct. 3, 1946.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,630 ft^3/s at 0300 June 10, gage height, 6.53 ft; minimum daily, 25 ft^3/s, June 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	149	220	298	225	173	182	81	70	62	104	53	46
2	147	225	210	191	178	182	79	54	57	63	62	64
3	140	215	193	240	182	178	84	50	65	42	47	78
4	171	212	184	212	173	165	82	47	366	33	35	75
5	271	215	180	191	165	182	79	47	984	30	35	71
6	191	220	173	207	163	173	75	50	1090	29	43	70
7	180	230	182	230	167	184	71	119	1150	30	45	58
8	182	240	195	217	173	184	71	88	1570	30	45	64
9	198	230	217	205	180	165	74	67	2060	38	36	78
10	240	220	235	205	180	149	72	74	2150	31	36	94
11	355	210	225	212	193	151	71	144	1360	30	40	86
12	277	212	222	167	203	163	113	171	682	30	45	77
13	191	238	222	171	217	153	135	108	216	36	39	86
14	186	240	212	186	222	149	114	72	106	37	36	78
15	205	362	191	189	230	153	81	53	74	139	40	81
16	271	535	195	193	222	144	74	50	35	124	45	77
17	260	339	203	210	230	130	68	59	31	102	42	70
18	251	230	365	235	233	124	66	66	25	98	42	64
19	265	227	622	215	230	119	68	57	60	244	44	64
20	292	205	384	161	220	116	61	62	103	427	51	61
21	313	205	238	191	207	118	61	62	94	202	45	58
22	323	195	191	203	222	121	68	59	85	138	39	61
23	339	203	210	180	205	116	66	58	211	121	39	68
24	348	210	200	193	191	106	53	58	254	105	38	68
25	339	212	182	205	189	108	57	57	102	88	34	72
26	345	230	205	210	184	97	66	94	344	74	38	75
27	329	222	240	207	182	88	77	230	246	48	53	70
28	313	220	246	212	180	85	63	180	486	37	64	72
29	313	439	243	215	---	85	63	146	408	51	56	78
30	268	578	238	200	---	86	72	78	169	52	51	78
31	240	---	238	173	---	82	---	78	---	51	45	---
TOTAL	7892	7739	7339	6251	5494	4238	2265	2608	14645	2664	1363	2142
MEAN	255	258	237	202	196	137	75.5	84.1	488	85.9	44.0	71.4
MAX	355	578	622	240	233	184	135	230	2150	427	64	94
MIN	140	195	173	161	163	82	53	47	25	29	34	46
AC-FT	15650	15350	14560	12400	10900	8410	4490	5170	29050	5280	2700	4250

CAL YR 1984 TOTAL 161129 MEAN 440 MAX 2680 MIN 96 AC-FT 319600
WTR YR 1985 TOTAL 64640 MEAN 177 MAX 2150 MIN 25 AC-FT 128200

06754000 SOUTH PLATTE RIVER NEAR KERSEY, CO

LOCATION.--Lat 40°24'44", long 104°33'46", in NW¼SW¼ sec.9, T.5 N., R.64W., Weld County, Hydrologic Unit 10190003, on downstream side of bridge on State Highway 37, 1.9 mi north of railroad in Kersey, and 2.5 mi downstream from Cache la Poudre River.

DRAINAGE AREA.--9,598 mi^2.

PERIOD OF RECORD.--May 1901 to December 1903, March 1905 to current year. Monthly discharge only for some periods, published in WSP 1310. Published as "at Kersey" 1901-3.

REVISED RECORDS.--WSP 1310: 1902, 1906, 1935(M). WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,575.77 ft above National Geodetic Vertical Datum of 1929. See WSP 1710 or 1730 for history of changes prior to July 3, 1935.

REMARKS.--Estimated daily discharges: Jan. 20 to Feb. 12. Records fair except for estimated daily discharges, which are poor. Natural flow of stream affected by transmountain and transbasin diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of about 888,000 acres, and return flow from irrigated areas. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--71 years (water years 1902-03, 1906-74), 777 ft^3/s; 562,900 acre-ft/yr, prior to completion of Chatfield Dam; 10 years (water years 1976-85), 1,446 ft^3/s; 1,048,000 acre-ft/yr, subsequent to completion of Chatfield Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,500 ft^3/s, May 8, 1973, gage height, 11.73 ft; minimum daily, 28 ft^3/s, Apr. 30, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,550 ft^3/s at 2300 Oct. 5, gage height, 8.04 ft; minimum daily, 284 ft^3/s, July 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1520	3650	1810	1060	912	1030	972	3230	1870	717	1040	750
2	1440	3530	1700	926	900	1040	948	3210	1690	510	798	956
3	1500	3450	1610	980	900	1110	870	3270	1710	392	662	1450
4	1700	3410	1570	980	900	1120	792	3350	2590	332	580	1200
5	6040	3430	1420	988	900	1190	792	3270	3940	312	535	1160
6	6180	3410	1380	980	950	1160	834	3410	3960	296	520	1050
7	4150	3330	1440	980	1000	1240	852	3510	3710	284	463	948
8	3430	3210	1400	988	1050	1260	828	3390	4180	308	380	891
9	3180	3160	1470	996	1100	1280	786	3080	4550	336	340	846
10	3200	3030	1470	972	1150	1210	870	2800	5230	372	340	933
11	3180	2990	1470	948	1200	1230	840	2540	5060	356	384	1010
12	2970	3010	1530	912	1250	1290	768	2560	3960	372	468	996
13	2700	2620	1640	919	1280	1190	780	2750	2960	409	490	1120
14	2670	2430	1540	988	1330	1140	840	3370	2510	450	500	1000
15	3450	2300	1300	1290	1210	1060	884	3140	1740	600	505	926
16	3310	2280	1360	1290	1120	1000	858	2900	1090	1060	520	891
17	3800	2010	1280	1230	1130	980	798	2610	828	864	525	834
18	3980	1870	1310	1250	1100	972	756	3060	734	756	560	792
19	4290	2040	1580	1210	1070	956	810	3210	786	1170	595	750
20	3710	1980	1420	1150	1100	948	728	3030	762	5000	605	744
21	3470	2010	1170	1090	1110	919	756	3310	651	5480	580	739
22	3430	2020	1070	1030	1110	912	762	3230	595	2610	570	744
23	3470	2040	1030	1070	1110	891	905	2920	610	2130	550	768
24	3410	2040	1070	1110	1140	877	840	2870	673	1310	545	884
25	3390	2100	1070	1110	1190	870	774	2900	535	1160	575	846
26	3390	2190	1080	1170	1080	864	1550	3100	810	898	575	822
27	3450	2100	1070	1260	1040	834	2080	3650	1810	798	590	810
28	3570	1770	1060	1170	1030	786	1580	3550	1370	750	722	816
29	3550	2060	1040	1120	---	780	1430	2820	1250	780	717	870
30	3650	2080	1020	1090	---	822	1880	2310	912	792	722	1040
31	3860	---	1060	919	---	1000	---	2070	---	905	728	---
TOTAL	105040	77550	41440	33176	30362	31961	29163	94420	63076	32509	17684	27586
MEAN	3388	2585	1337	1070	1084	1031	972	3046	2103	1049	570	920
MAX	6180	3650	1810	1290	1330	1290	2080	3650	5230	5480	1040	1450
MIN	1440	1770	1020	912	900	780	728	2070	535	284	340	739
AC-FT	208300	153800	82200	65800	60220	63390	57840	187300	125100	64480	35080	54720

CAL YR 1984 TOTAL 973341 MEAN 2659 MAX 9190 MIN 684 AC-FT 1931000
WTR YR 1985 TOTAL 583967 MEAN 1600 MAX 6180 MIN 284 AC-FT 1158000

06756995 SOUTH PLATTE RIVER AT MASTERS, CO

LOCATION.--Lat 40°18'22", long 104°14'40", in SE¼ sec.18, T.4 N., R.61 W., Weld County, Hydrologic Unit 10190003, on right bank at bridge on Weld County Road 87, 1.0 mi north of U.S. Highway 34 at Masters.

DRAINAGE AREA.--12,119 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1976 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,450 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Feb. 28 to Mar. 25, May 28, 29, July 16-18, Aug. 6-21. Records fair except for estimated daily discharges, which are poor. Natural flow of stream affected by transmountain, transbasin, and storage diversions, power developments, ground-water withdrawals and diversions for irrigation, and return flows from irrigated areas.

AVERAGE DISCHARGE.--8 years (water years 1978-85), 1,190 ft³/s; 862,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,100 ft³/s, May 2, 1980, gage height, 10.06 ft; minimum daily, 3.5 ft³/s, Mar. 16, 18, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,740 ft³/s at 1600 Oct. 6, gage height, 7.53 ft; minimum daily, 30 ft³/s, Mar. 25, 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1670	3350	1470	725	987	284	508	2080	911	714	1660	787
2	1680	3280	1380	722	2360	275	429	2800	742	604	1260	949
3	1750	3210	1320	818	3100	269	372	2770	704	383	896	1580
4	1850	3210	1280	705	3210	269	236	2900	1400	277	608	1430
5	3200	3000	1270	683	3170	300	158	2670	2620	222	402	1310
6	6240	2940	1250	611	2870	296	260	2650	3300	204	360	1240
7	4480	2860	1170	603	2700	275	468	2690	3070	207	305	1150
8	3490	2810	1140	597	2720	246	451	2620	3150	221	310	1130
9	3020	2700	1160	610	2860	210	488	2630	3650	253	325	919
10	2930	2660	1140	661	2790	180	577	2210	4280	308	340	820
11	2860	2580	1110	636	2910	150	665	665	4110	339	370	922
12	2720	2590	1100	717	2810	135	485	1470	3420	335	400	1010
13	2390	2430	1100	850	2800	115	432	1570	2430	376	430	1030
14	2400	2300	1230	1010	2900	98	446	2570	1660	441	476	1270
15	2770	2130	1060	1220	2660	87	477	2380	797	621	490	1200
16	2700	2210	1090	1410	1890	76	547	2240	270	884	500	980
17	3290	2030	1070	1340	1210	68	517	1960	49	820	515	876
18	3790	1830	1000	1010	799	60	567	2160	51	788	540	768
19	3900	1950	1190	935	691	52	519	2550	65	960	570	739
20	3810	1890	1240	926	669	47	558	2410	170	2550	590	678
21	3350	1970	1010	923	642	41	591	2580	117	3800	610	629
22	3150	2040	910	1240	631	38	676	2410	93	1960	578	636
23	3090	1960	867	1190	642	35	735	2280	236	1360	584	636
24	3080	1960	925	1160	616	33	850	2130	429	832	525	678
25	3090	1960	852	1220	566	30	548	2200	327	537	581	729
26	3110	2070	819	1170	446	30	816	2280	317	374	610	670
27	3250	2000	868	1170	326	42	1980	2560	1520	219	616	693
28	3270	1680	892	1090	295	120	1450	2400	1210	199	710	643
29	3310	1670	812	1130	---	102	1050	1780	1200	664	669	672
30	3290	1660	781	1150	---	52	1070	1440	954	864	649	802
31	3310	---	726	1030	---	170	---	1120	---	1250	703	---
TOTAL	96240	70930	33232	29262	50270	4185	18926	69175	43252	23566	18182	27576
MEAN	3105	2364	1072	944	1795	135	631	2231	1442	760	587	919
MAX	6240	3350	1470	1410	3210	300	1980	2900	4280	3800	1660	1580
MIN	1670	1660	726	597	295	30	158	665	49	199	305	629
AC-FT	190900	140700	65920	58040	99710	8300	37540	137200	85790	46740	36060	54700

CAL YR 1984 TOTAL 798763 MEAN 2182 MAX 8010 MIN 348 AC-FT 1584000
WTR YR 1985 TOTAL 484796 MEAN 1328 MAX 6240 MIN 30 AC-FT 961600

06756995 SOUTH PLATTE RIVER AT MASTERS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1976 to September 1979. March 1982 to Current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)
OCT 1984							
17...	15:10	3280	960	8.1	8.0	65	9.1
NOV							
13...	15:50	2350	944	7.9	8.0	22	9.5
DEC							
11...	11:00	1120	1110	8.1	3.5	14	9.9
JAN 1985							
24...	12:20	1150	1200	7.8	0.0	13	10.9
FEB							
25...	13:30	615	1280	8.0	7.0	30	9.2
MAR							
25...	13:00	31	1250	8.0	15.5	1.7	18.8
APR							
22...	15:30	694	1000	8.0	14.0	23	8.8
MAY							
30...	12:30	1550	800	8.1	19.0	37	8.0
JUN							
13...	17:15	2170	650	7.9	22.5	53	7.4
JUL							
18...	11:30	818	1200	8.0	23.0	--	7.6
AUG							
21...	14:15	645	1500	7.9	25.5	30	9.1
SEP							
24...	13:45	677	1420	8.2	10.0	29	8.9

DATE	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 1984							
17...	K8800	K1900	K5900	3.30	2.0	5.3	0.98
NOV							
13...	2100	340	850	--	--	--	--
DEC							
11...	1600	230	1300	5.10	1.4	6.5	1.00
JAN 1985							
24...	460	K30	K80	4.90	3.6	8.5	1.40
FEB							
25...	1500	K160	220	5.00	4.3	9.3	0.25
MAR							
25...	270	K85	130	3.80	1.0	4.8	0.56
APR							
22...	570	K65	190	3.80	1.9	5.7	0.82
MAY							
30...	1300	177	220	3.20	1.5	4.7	0.59
JUN							
13...	460	K190	570	2.50	1.1	3.6	0.67
JUL							
18...	4400	K1900	1100	3.50	1.8	5.3	0.76
AUG							
21...	3700	380	K210	4.20	1.4	5.6	0.54
SEP							
24...	510	--	1300	5.40	1.7	7.1	0.68

K Based on non-ideal colony count.

06758500 SOUTH PLATTE RIVER NEAR WELDONA, CO

LOCATION.--Lat 40°19'19", long 103°55'17", in SW¼SW¼ sec.7, T.4 N., R.58 W., Morgan County, Hydrologic Unit 10190003, on left bank 400 ft downstream from bridge on State Highway 144, 2.8 mi southeast of Weldona, and 4.2 mi upstream from Bijou Creek.

DRAINAGE AREA.--13,245 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1952 to current year.

REVISED RECORDS.--WSP 1710: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,307.80 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 19 to Feb. 7. Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by transmountain and transbasin diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--22 years (water years 1953-74), 572 ft^3/s; 414,400 acre-ft/yr, prior to completion of Chatfield Dam. 10 years (water years 1976-85), 1,059 ft^3/s; 767,200 acre-ft/yr, subsequent to completion of Chatfield Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,800 ft^3/s, May 8, 1973, gage height, 11.68 ft, from rating curve extended above 16,000 ft^3/s; minimum daily, 39 ft^3/s, May 19, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,250 ft^3/s at 2300 Oct. 6, gage height, 8.52 ft; minimum daily, 100 ft^3/s, July 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1520	3150	1530	713	840	438	372	1660	1250	518	1150	523
2	1480	3200	1350	671	635	423	501	2820	1100	507	1190	629
3	1420	3180	1210	713	635	382	448	3050	1060	387	867	818
4	1540	3100	1130	764	640	382	397	3100	1330	233	641	1070
5	2180	3030	1090	671	715	433	273	2980	2180	167	277	986
6	6100	3030	1090	623	805	454	237	2890	3010	302	140	1030
7	5240	2980	1080	611	895	397	418	2760	2920	312	145	978
8	3590	2890	1050	617	1050	353	464	2870	2660	298	130	909
9	3220	2820	1030	629	1320	368	496	2680	2920	281	110	758
10	2930	2740	1040	617	1410	363	550	2320	3330	285	273	653
11	2840	2680	1060	594	1590	338	665	1970	3750	325	290	732
12	2820	2620	1050	588	1570	343	594	1720	3150	316	368	846
13	2710	2580	1050	617	1560	343	512	1830	2290	294	480	832
14	2640	2290	1100	689	1670	269	443	2270	1670	325	496	902
15	2640	2060	1120	846	1620	281	325	2590	1200	392	470	832
16	3480	1970	1010	1080	1410	233	368	2500	707	523	475	719
17	3420	2000	1030	1320	1320	208	412	2270	358	832	470	653
18	3830	1860	1010	1290	1140	187	438	2190	135	744	496	665
19	3960	1740	1030	1110	1040	181	523	2700	140	732	545	758
20	3900	1770	1200	1060	1010	178	545	2680	191	1330	572	732
21	3650	1770	1140	1060	860	175	617	2660	181	2950	556	738
22	3420	1800	916	1100	811	161	758	2640	148	2240	480	751
23	3270	1820	860	1180	797	152	916	2560	191	1250	443	683
24	3240	1770	874	1200	770	142	930	2420	330	832	423	566
25	3130	1770	888	1300	732	135	790	2380	438	459	459	713
26	3080	1770	874	1320	653	155	777	2580	392	330	485	707
27	3080	1790	895	1360	528	155	1650	2710	600	145	464	689
28	3120	1750	938	1390	459	184	1640	2950	1070	100	459	695
29	3130	1500	895	1270	---	237	1320	2560	860	294	512	751
30	3050	1500	818	1160	---	229	1170	1980	764	605	475	770
31	3050	---	770	1050	---	181	---	1480	---	725	480	---
TOTAL	96680	68930	32128	29213	28485	8460	19549	76770	40325	19033	14821	23088
MEAN	3119	2298	1036	942	1017	273	652	2476	1344	614	478	770
MAX	6100	3200	1530	1390	1670	454	1650	3100	3750	2950	1190	1070
MIN	1420	1500	770	588	459	135	237	1480	135	100	110	523
AC-FT	191800	136700	63730	57940	56500	16780	38780	152300	79980	37750	29400	45800

CAL YR 1984 TOTAL 800992 MEAN 2189 MAX 8440 MIN 438 AC-FT 1589000
WTR YR 1985 TOTAL 457482 MEAN 1253 MAX 6100 MIN 100 AC-FT 907400

06758500 SOUTH PLATTE RIVER NEAR WELDONA, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1967 to September 1968, October 1971 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
OCT 1984									
17...	11:40	3000	1040	8.2	7.5	9.6	310	70	33
NOV									
13...	12:30	2420	922	7.9	7.5	10.4	300	72	30
DEC									
11...	12:30	1100	1200	8.0	4.0	10.6	420	100	42
JAN 1985									
24...	09:00	--	1270	8.0	0.0	11.3	450	110	43
FEB									
25...	11:00	629	1330	8.0	4.5	10.9	470	110	47
MAR									
25...	14:30	184	1800	8.6	17.0	14.8	640	150	64
APR									
23...	11:00	853	1250	8.2	11.5	10.0	400	94	39
MAY									
29...	11:15	1790	800	8.0	21.0	7.6	260	64	25
JUN									
13...	12:00	1590	680	8.1	20.0	8.3	200	50	19
JUL									
17...	14:15	804	1330	8.2	27.5	8.6	480	110	49
AUG									
22...	11:15	556	1970	7.9	21.5	11.7	740	170	76
SEP									
25...	14:15	764	1670	8.3	14.0	10.8	600	140	62

DATE	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
OCT 1984								
17...	85	2	5.0	162	290	46	0.9	11
NOV								
13...	76	2	4.4	151	250	43	1.1	11
DEC								
11...	110	2	5.6	200	360	54	1.1	13
JAN 1985								
24...	110	2	5.6	220	380	66	1.0	13
FEB								
25...	120	2	6.5	200	420	66	1.1	13
MAR								
25...	150	3	7.4	214	630	73	1.0	12
APR								
23...	93	--	5.0	168	340	46	0.8	9.8
MAY								
29...	63	2	4.1	121	200	35	1.0	12
JUN								
13...	47	1	3.1	102	190	26	0.7	9.6
JUL								
17...	110	2	7.2	180	440	48	0.9	12
AUG								
22...	170	3	7.7	255	720	76	1.1	18
SEP								
25...	140	3	7.1	243	590	71	1.2	17

06758500 SOUTH PLATTE RIVER NEAR WELDONA, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	ALGAL GROWTH POTEN- TIAL, BOTTLE TEST (MG/L)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
OCT 1984								
17...	640	0.87	5170	3.40	0.50	--	17	7
NOV								
13...	580	0.79	3780	3.60	0.58	--	23	6
DEC								
11...	810	1.1	2390	4.90	0.76	--	13	11
JAN 1985								
24...	860	1.2	--	5.40	1.20	--	16	14
FEB								
25...	900	1.2	1530	5.50	0.95	--	10	71
MAR								
25...	1200	1.7	604	4.50	0.20	--	<3	14
APR								
23...	745	0.99	1680	3.60	0.45	90	11	11
MAY								
29...	480	0.65	2300	2.80	0.48	36	29	11
JUN								
13...	410	0.55	1750	2.10	0.34	6.8	49	9
JUL								
17...	890	1.2	1920	4.30	0.31	67	55	9
AUG								
22...	1400	1.9	2090	6.80	0.14	7.8	7	42
SEP								
25...	1200	1.6	2420	6.50	0.39	66	4	19

06759100 BIJOU CREEK NEAR FORT MORGAN, CO

LOCATION.--Lat 40°16'58", long 103°52'31", in NW¼SE¼ sec.28, T.4 N., R.58 W., Morgan County, Hydrologic Unit 10190011, on left bank 1,000 ft downstream from bridge on State Highway 144, 0.8 mi upstream from South Platte River, and 4.0 mi northwest of Fort Morgan.

DRAINAGE AREA.--1,500 mi^2.

PERIOD OF RECORD.--Streamflow records, December 1976 to current year. Water quality data available October 1976 to September 1979.

GAGE.--Water-stage recorder. Elevation of gage is 4,302 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 1-11, Jan. 20-24, Apr. 1-23. Records fair except for estimated daily discharges, which are poor. Natural flow of stream affected by delivery of stored water from Bijou No. 2 reservoir to South Platte River past the gage, and waste flows from Fort Morgan Canal, which crosses 1.5 mi upstream. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,200 ft^3/s July 26, 1977, gage height, 6.01 ft, from floodmark, from rating curve extended above 140 ft^3/s, on basis of slope-area measurement of peak flow; minimum daily, 4.8 ft^3/s Oct. 2-4, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 209 ft^3/s at 0900 July 31, gage height, 2.55 ft; minimum daily, 5.3 ft^3/s, July 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	7.8	9.2	7.1	22	10	6.8	12	13	6.5	125	17
2	15	8.5	9.2	7.8	15	8.5	7.2	12	13	6.5	16	17
3	15	8.5	9.2	7.8	13	7.1	7.8	12	19	5.8	13	16
4	16	7.8	9.2	7.8	13	7.1	8.0	11	41	5.4	15	16
5	17	7.8	9.5	20	11	7.8	8.0	13	17	5.4	11	16
6	15	8.5	9.5	46	9.8	9.2	8.2	13	15	5.4	9.2	15
7	14	10	9.5	45	10	9.2	8.8	15	14	5.3	9.2	15
8	14	10	9.5	44	10	7.8	9.0	16	46	11	6.5	15
9	15	10	9.5	23	12	7.8	9.0	16	70	18	7.1	14
10	15	9.8	9.5	28	19	9.2	9.0	16	62	22	15	12
11	15	9.8	9.5	27	21	7.8	9.0	16	18	23	20	12
12	15	9.8	8.5	33	17	7.1	9.0	18	17	23	21	9.2
13	15	11	8.5	36	18	7.1	9.0	50	17	23	21	9.8
14	15	9.8	7.1	33	17	7.1	9.0	31	14	24	23	11
15	16	7.8	7.1	27	17	16	9.0	17	15	24	23	13
16	17	7.8	7.1	25	17	37	10	17	14	23	23	35
17	15	9.2	7.1	36	16	44	10	17	13	23	20	48
18	17	8.5	7.1	36	15	25	10	15	13	23	20	53
19	18	8.5	7.1	29	13	15	10	14	14	29	20	57
20	15	9.2	7.1	28	13	14	10	15	13	71	20	53
21	13	9.8	7.1	28	13	12	10	13	12	152	19	57
22	16	10	6.5	28	13	12	11	13	9.8	79	17	67
23	17	9.8	6.5	28	12	12	11	14	9.2	55	19	69
24	15	13	5.8	27	11	12	12	14	9.2	38	17	72
25	15	12	6.5	26	10	9.8	13	14	9.2	42	16	77
26	13	9.8	6.5	22	9.2	10	12	14	8.5	16	16	87
27	15	7.8	6.5	23	9.2	10	12	14	7.8	13	16	85
28	12	8.5	7.1	27	9.2	9.2	12	14	5.8	12	17	88
29	9.2	9.2	7.8	27	---	7.8	12	15	5.4	12	18	93
30	8.5	9.2	7.1	26	---	6.5	13	15	6.5	16	18	99
31	8.5	---	7.1	22	---	6.5	---	12	---	90	17	---
TOTAL	451.2	279.2	244.5	830.5	385.4	371.6	294.8	498	541.4	902.3	628.0	1248.0
MEAN	14.6	9.31	7.89	26.8	13.8	12.0	9.83	16.1	18.0	29.1	20.3	41.6
MAX	18	13	9.5	46	22	44	13	50	70	152	125	99
MIN	8.5	7.8	5.8	7.1	9.2	6.5	6.8	11	5.4	5.3	6.5	9.2
AC-FT	895	554	485	1650	764	737	585	988	1070	1790	1250	2480

CAL YR 1984 TOTAL 4484.5 MEAN 12.3 MAX 188 MIN 5.8 AC-FT 8900
WTR YR 1985 TOTAL 6674.9 MEAN 18.3 MAX 152 MIN 5.3 AC-FT 13240

06764000 SOUTH PLATTE RIVER AT JULESBURG, CO

LOCATION.--Lat 40°58'46", long 102°15'15", in NW¼NE¼ and SE¼NE¼ (two channels) sec.33, T.12 N., R.44 W., Sedgwick County, Hydrologic Unit 10190018, on left bank of channel 4 (left channel) 215 ft downstream from bridge, and on right bank of channel 2, 800 ft downstream from bridge on U.S. Highway 385, 0.9 mi southeast of Julesburg, 3.0 mi upstream from Colorado-Nebraska State line, and 8 mi downstream from Lodgepole Creek.

DRAINAGE AREA.--23,138 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1902 to current year. Monthly discharge only for some periods, published in WSP 1310. Published as "near Julesburg" 1903-8, 1915-16, and as "at Ovid" 1922-24.

REVISED RECORDS.--WSP 1310: 1902, 1906-7, 1948(P). WSP 1440: 1903-4. WSP 1730: Drainage area.

GAGE.--Two water-stage recorders. Datum of gages is 3,446.76 ft above National Geodetic Vertical Datum of 1929. See WSP 1710 or 1730 for history of changes prior to Oct. 1, 1956. Since Oct. 1, 1956, water-stage recorders on channels nos. 2 and 4. Channel no. 2: Oct. 1, 1956, to Sept. 22, 1965, at site 300 ft downstream at present datum. Channel no. 4: Oct. 1, 1956, to Dec. 10, 1958, at site 135 ft downstream at present datum. Since May 11, 1973, supplementary water-stage recorder on channel no. 2 at bridge 800 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Jan. 2 to Feb. 8, July 23, 24, 30, 31. Records good except for estimated daily discharges, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of 1,200,000 acres above station, and return flow from irrigated areas.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--83 years, 539 ft^3/s; 390,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,600 ft^3/s, June 20, 1965, gage height, 10.44 ft, from floodmarks in gage well; no flow, Aug. 18-20, 1902, July 25 to Aug. 7, 1903.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,200 ft^3/s, Oct. 10, gage height, 5.84 ft; minimum daily, 20 ft^3/s, July 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1200	2840	1820	1240	1200	1370	159	804	1780	33	182	88
2	1220	2830	1750	1200	1100	1220	154	1020	1500	31	191	109
3	1270	2870	1750	1150	1050	1120	149	1170	1300	31	223	149
4	1270	2890	1680	1150	1050	1010	145	1300	1070	31	290	159
5	1360	2900	1600	1150	1050	939	145	1580	991	29	351	167
6	1460	2870	1540	1100	1050	887	159	1810	1010	28	369	196
7	1580	2790	1480	1100	1050	868	176	1910	1050	27	335	296
8	2220	2760	1420	1050	1050	832	187	1980	1220	28	248	410
9	3060	2720	1370	1050	1050	783	199	2030	1500	34	171	489
10	3130	2620	1310	1050	1050	686	209	1990	1690	29	105	536
11	2920	2590	1260	950	1060	620	227	1950	1830	26	91	558
12	2670	2530	1270	950	1200	571	227	1840	1960	23	83	591
13	2530	2520	1250	900	1500	550	208	1780	2180	23	69	611
14	2520	2520	1270	850	1800	533	169	1840	2210	21	62	618
15	2420	2500	1200	850	2100	519	138	1920	1740	21	61	634
16	2390	2390	1170	850	2220	437	112	1990	1300	21	62	658
17	2360	2290	1290	850	2340	428	104	2150	991	21	58	668
18	2520	2140	1240	900	2460	396	89	2280	587	20	55	675
19	2660	2130	1210	1100	2460	360	77	2300	324	30	53	656
20	2780	2060	1220	1300	2460	338	77	2190	202	100	53	593
21	2900	1980	1230	1400	2420	319	79	2290	132	96	53	575
22	3000	1940	1290	1500	2240	297	79	2390	95	131	54	593
23	3070	1900	1410	1600	2160	280	79	2380	73	471	57	611
24	3000	1880	1390	1700	2000	264	81	2380	61	708	63	640
25	2960	1890	1360	1650	1910	250	91	2280	54	745	65	677
26	2850	1880	1320	1600	1840	232	103	2140	53	515	68	705
27	2780	1880	1310	1550	1690	215	137	2120	47	345	69	712
28	2720	1880	1300	1500	1510	199	170	2150	43	256	68	721
29	2780	1860	1260	1450	---	184	232	2120	41	154	70	749
30	2800	1880	1270	1400	---	176	448	2100	36	164	74	771
31	2850	---	1250	1300	---	166	---	2040	---	174	75	---
TOTAL	75250	70730	42490	37390	46070	17049	4609	60224	27070	4366	3828	15615
MEAN	2427	2358	1371	1206	1645	550	154	1943	902	141	123	521
MAX	3130	2900	1820	1700	2460	1370	448	2390	2210	745	369	771
MIN	1200	1860	1170	850	1050	166	77	804	36	20	53	88
AC-FT	149300	140300	84280	74160	91380	33820	9140	119500	53690	8660	7590	30970

CAL YR 1984 TOTAL 754823 MEAN 2062 MAX 7800 MIN 84 AC-FT 1497000
WTR YR 1985 TOTAL 404691 MEAN 1109 MAX 3130 MIN 20 AC-FT 802700

06764000 SOUTH PLATTE RIVER AT JULESBURG, CO--Continued
(Irrigation network station)
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1945 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1945 to September 1981 (discontinued).
WATER TEMPERATURES: Water years 1945-49, October 1950 to September 1981 (discontinued).

INSTRUMENTATION.--Water-quality monitor from July 1973 to September 1979.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 3,270 microsiemens Jan. 12, 1971; minimum daily, 348 microsiemens Aug. 15, 1968.
WATER TEMPERATURES: Maximum, 36.0°C July 17, 19, 1977, July 16, 1978; minimum, freezing point on many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)
DEC 1984 12...	09:00	1560	1470	8.3	0.5	30	12.6	620	K4100	550
MAR 1985 26...	09:30	342	1880	8.3	9.5	2.6	8.9	K35	K42	690
JUN 12...	14:45	1890	825	8.3	20.0	150	7.8	440	1050	270
SEP 25...	08:30	636	1680	8.4	8.0	77	9.9	M	720	590

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
DEC 1984 12...	140	49	130	2	9.2	225	500	66	1.0	17
MAR 1985 26...	180	57	170	3	14	238	700	85	0.8	21
JUN 12...	69	24	64	2	5.3	137	240	34	0.7	12
SEP 25...	140	58	160	3	11	238	610	77	0.9	16

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)
DEC 1984 12...	1110	1000	1.5	4680	4.10	0.46	1.3	0.57	0.44
MAR 1985 26...	1420	1400	1.9	1310	3.50	0.09	0.8	0.25	0.22
JUN 12...	552	520	0.75	2820	1.90	0.04	2.1	0.96	0.34
SEP 25...	1300	1200	1.8	2230	2.40	0.08	1.8	0.28	0.15

DATE	TIME	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)
DEC 1984 12...	09:00	4	56	1	9	<3	3	8
MAR 1985 26...	09:30	2	71	<1	<1	<3	3	4
JUN 12...	14:45	2	45	<1	<1	<3	3	22
SEP 25...	08:30	3	60	<1	<1	<3	2	6

K BASED ON NON-IDEAL COLONY COUNT.
M PRESENCE OF MATERIAL VERIFIED BUT NOT QUANTIFIED.

06764000 SOUTH PLATTE RIVER AT JULESBURG, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)
DEC 1984							
12...	4	4	<0.1	<2	4	<1	21
MAR 1985							
26...	<1	6	<0.1	5	4	1	7
JUN							
12...	<1	3	<0.1	2	<1	<1	12
SEP							
25...	1	2	0.2	2	2	1	10

RADIO CHEMICAL ANALYSES, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)
DEC 1984								
12...	09:00	46	2.5	14	5.7	12	4.9	0.15
MAR 1985								
26...	09:30	--	--	--	--	--	--	--
JUN								
12...	14:45	--	--	--	--	--	--	--
SEP								
25...	08:30	--	--	--	--	--	--	--

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
DEC 1984				
12...	09:00	1560	545	2300
MAR 1985				
26...	09:30	342	312	288
JUN				
12...	14:45	1890	622	3170
SEP				
25...	08:30	636	244	419

06823000 NORTH FORK REPUBLICAN RIVER AT COLORADO-NEBRASKA STATE LINE

LOCATION.--Lat 40°04'10", long 102°03'05", in sec.10, T.1 N., R.42 W., Dundy County, NE, Hydrologic Unit 10250002, on right bank 100 ft east of Colorado-Nebraska State line and 9.5 mi upstream from confluence with Arikaree River.

DRAINAGE AREA.--1,360 mi², approximately, of which about 100 mi² contribute directly to surface runoff.

PERIOD OF RECORD.--October 1930 to current year. Prior to October 1932, published as North Fork of Arikaree River at Colorado-Nebraska State line. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1240: 1947(M). WSP 1390: 1934. WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Steel-piling control since January 1965. Datum of gage is 3,336.09 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 17, 1934, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Dec. 24-25, Jan. 9-14, 20-24, Feb. 1-9. Records good except for periods of estimated record, which are fair. Natural flow affected by diversion in Pioneer Canal for irrigation of about 2,700 acres in Colorado and Nebraska.

AVERAGE DISCHARGE.--55 years, 47.2 ft³/s; 34,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,110 ft³/s, Apr. 28, 1947, gage height, 5.92 ft, from rating curve extended above 800 ft³/s, on basis of slope-area measurement of peak flow; no flow, Aug. 25, 26, 1932.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 130 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 7	0930	---	a*2.22	Feb. 16	1800	*85	1.16

a Backwater from ice
Minimum daily, 8.6 ft³/s, July 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	56	61	60	43	61	59	59	25	9.9	40	12
2	21	56	60	61	45	61	58	23	25	9.8	42	11
3	21	56	60	58	47	62	56	25	25	10	39	11
4	23	56	60	60	45	61	55	25	27	9.5	35	12
5	29	59	58	61	42	61	57	24	32	9.0	30	44
6	32	60	60	62	45	61	58	26	22	8.7	22	62
7	32	62	57	61	54	61	57	24	25	8.8	22	35
8	30	60	57	62	64	61	56	20	17	8.6	20	31
9	32	59	58	60	56	61	56	20	15	9.6	20	35
10	32	60	58	56	61	61	56	18	15	11	19	36
11	31	60	58	54	61	60	57	18	16	12	18	40
12	34	61	58	50	60	60	56	16	15	11	19	40
13	37	63	58	56	61	62	56	29	13	9.6	20	38
14	39	60	60	66	61	62	54	64	12	11	22	37
15	47	60	58	58	66	61	54	44	12	10	26	37
16	59	61	60	58	81	60	53	29	11	9.0	25	35
17	65	61	59	59	76	61	54	26	11	9.4	24	37
18	59	61	58	62	67	59	52	24	11	9.0	25	35
19	56	61	60	63	65	59	52	26	12	11	26	33
20	56	61	59	50	65	58	52	25	11	15	26	33
21	57	62	58	40	66	59	49	25	12	15	24	33
22	58	62	58	50	64	58	48	24	11	13	22	38
23	59	62	58	54	63	57	48	23	9.1	13	18	39
24	58	61	56	80	63	57	43	23	8.8	11	19	37
25	57	61	52	60	63	58	51	26	11	9.5	16	41
26	58	62	58	61	62	56	60	26	9.9	9.2	13	39
27	57	62	58	61	61	54	56	27	10	12	12	37
28	57	61	61	62	61	55	51	40	11	14	12	37
29	57	62	64	62	---	57	58	35	10	21	12	42
30	57	61	62	64	---	58	67	28	9.5	21	12	48
31	56	---	61	54	---	59	---	26	---	31	12	---
TOTAL	1388	1809	1823	1825	1668	1841	1639	868	454.3	371.6	692	1045
MEAN	44.8	60.3	58.8	58.9	59.6	59.4	54.6	28.0	15.1	12.0	22.3	34.8
MAX	65	63	64	80	81	62	67	64	32	31	42	62
MIN	21	56	52	40	42	54	43	16	8.8	8.6	12	11
AC-FT	2750	3590	3620	3620	3310	3650	3250	1720	901	737	1370	2070

CAL YR 1984	TOTAL	17113.1	MEAN	46.8	MAX	128	MIN	6.9	AC-FT	33940
WTR YR 1985	TOTAL	15423.9	MEAN	42.3	MAX	81	MIN	8.6	AC-FT	30590

06826000 BONNY RESERVOIR NEAR HALE, CO

LOCATION.--Lat 39°37'24", long 102°10'26", in SE¼SE¼ sec.9, T.5 S., R.43 W., Yuma County, Hydrologic Unit 10250003, in stair well to outlet conduit of Bonny Dam on South Fork Republican River, 1.7 mi west of Hale, and 3.0 mi downstream from Landsman Creek.

DRAINAGE AREA.--1,820 mi², approximately.

PERIOD OF RECORD.--October 1950 to current year.

REVISED RECORDS.--WSP 1710: 1955.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Prior to Oct. 1, 1967, nonrecording gage at present site and datum.

REMARKS.--Reservoir is formed by an earthfill dam. Storage began July 6, 1950; dam completed May 4, 1951. Capacity of reservoir, 170,200 acre-ft, below elevation 3,710 ft, crest of spillway, of which 128,800 acre-ft is for flood control and 39,900 acre-ft is for irrigation. Dead storage, 1,420 acre-ft below elevation 3,635.0 ft, sill of trashrack at outlet conduit. Figures given represent total contents.

COOPERATION.--Records provided by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 55,030 acre-ft, May 17, 1957, elevation, 3,678.10 ft; minimum observed since appreciable contents was attained, 22,520 acre-ft, Oct. 6-14, 1952, elevation, 3,661.20 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 40,260 acre-ft, May 26, elevation, 3,671.47 ft; minimum, 34,260 acre-ft, Sept. 28, elevation, 3,668.33 ft.

CORRECTIONS.--The minimum contents for water year 1984 is 34,820 acre-ft, Oct. 28, 1984, elevation 3,668.63 ft; the previously published figure was not the minimum.

Capacity table (elevation, in feet, and total contents, in acre-feet)
(provided by U.S. Bureau of Reclamation)

3,665.0	28,460
3,672.8	42,990

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35600	35900	36300	37300	37800	37900	38600	39200	40000	38900	37400	35200
2	35600	36000	36300	37300	37800	37900	38600	39200	40000	38900	37400	35100
3	35600	36000	36400	37300	37800	37900	38600	39200	40000	38800	37300	35100
4	35600	35900	36400	37400	37800	37900	38600	39300	40000	38700	37300	35000
5	35600	35900	36400	37300	37800	37900	38700	39300	40100	38700	37200	35000
6	35600	36000	36400	37300	37700	38000	38700	39300	40100	38600	37200	34900
7	35600	36000	36400	37300	37700	38000	38700	39300	40100	38500	37000	34800
8	35500	36000	36400	37400	37700	38000	38700	39300	40000	38400	37000	34800
9	35700	35900	36400	37400	37700	38100	38700	39300	40000	38300	36900	34700
10	35700	36000	36400	37400	37700	38100	38800	39300	40000	38200	36800	34600
11	35700	36000	36400	37400	37700	38100	38800	39300	40000	38100	36700	34600
12	35600	36000	36500	37500	37700	38100	38800	39300	40000	38000	36600	34600
13	35600	36000	36600	37500	37700	38100	38800	39700	40000	37900	36500	34600
14	35700	36000	36600	37500	37700	38200	38900	39800	40000	37800	36500	34600
15	35700	36000	36700	37600	37800	38200	38900	39900	40000	37700	36500	34700
16	35800	36000	36700	37600	37800	38200	38900	39900	40000	37600	36400	34600
17	35800	36000	36700	37700	37800	38300	38900	39900	40000	37100	36400	34600
18	35800	36100	36800	37700	37800	38400	38900	40000	40000	36900	36300	34500
19	35800	36100	36800	37700	37800	38400	38900	40100	40000	36900	36300	34400
20	35800	36100	36800	37700	37800	38400	38900	40100	40000	37200	36200	34400
21	35800	36100	36900	37700	37800	38400	38900	40100	39900	37300	36100	34400
22	35800	36200	36900	37700	37800	38400	38900	40200	39700	37300	36000	34400
23	35900	36300	36900	37800	37900	38400	38900	40200	39700	37300	35900	34400
24	35900	36300	37000	37900	37900	38400	38900	40200	39600	37400	35800	34400
25	35900	36300	37000	37800	37900	38500	38900	40200	39400	37500	35700	34400
26	35900	36300	37000	37800	37900	38500	38900	40200	39400	37400	35700	34400
27	35900	36300	37100	37800	37900	38500	39000	40200	39300	37400	35600	34300
28	35900	36300	37100	37800	37900	38500	39000	40100	39200	37300	35500	34300
29	36000	36300	37200	37800	---	38400	39100	40100	39100	37300	35400	34300
30	36000	36300	37200	37800	---	38500	39200	40100	39000	37300	35400	34400
31	35900	---	37300	37800	---	38500	---	40000	---	37400	35300	---
MAX	36000	36300	37300	37900	37900	38500	39200	40200	40100	38900	37400	35200
MIN	35500	35900	36300	37300	37700	37900	38600	39200	39000	36900	35300	34300

WTR YR 1985 MAX 40200 MIN 34300

06826500 SOUTH FORK REPUBLICAN RIVER NEAR HALE, CO

LOCATION.--Lat 39°37'26", long 102°09'47", in SW¼NE¼ sec.15, T.5 S., R.43 W., Yuma County, Hydrologic Unit 10250003, on right bank 0.5 mi downstream from Bonny Dam and 1.2 mi west of Hale.

DRAINAGE AREA.--1,825 mi², approximately.

PERIOD OF RECORD.--October 1946 to September 1948, May 1951 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 3,610 ft, from topographic map. Oct. 1, 1946, to Sept. 30, 1948, at site 4 mi downstream at different datum.

REMARKS.--Records good. Flow regulated by Bonny Reservoir since July 6,1950 (station 06826000). Many diversions above station for irrigation. Water diverted by Hale ditch from Bonny Reservoir bypasses station (3,230 acre-ft diverted during current year). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Hale ditch diversion records provided by State Engineer of Colorado.

AVERAGE DISCHARGE.--34 years (water years 1952-85), 19.6 ft³/s; 14,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,790 ft³/s, May 28, 1947, gage height, 4.71 ft, site and datum then in use; no flow Aug. 11-13, 1947.

EXTREMES OUTSIDE PERIOD OF RECORD.--Greatest flood known occurred May 31, 1935, stage and discharge not determined. A discharge of 103,000 ft³/s was determined at a site near Newton, 5.5 mi upstream, with a drainage area of approximately 1,270 mi².

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 105 ft³/s at 2400 Jan. 21, gage height, 4.81 ft; maximum gage height, 4.91, Jan. 24; minimum daily, 4.7 ft³/s, Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	6.0	5.3	6.1	51	26	7.1	6.3	5.5	6.6	7.6	4.8
2	5.1	6.0	5.2	6.2	52	26	7.1	6.1	5.2	6.7	7.4	4.8
3	5.7	6.2	5.2	6.5	52	26	7.5	6.5	6.0	6.7	7.0	4.8
4	6.6	5.9	5.2	6.5	52	24	7.9	6.5	7.6	6.3	6.8	5.8
5	6.0	6.0	5.2	6.5	52	18	7.2	6.6	6.5	6.3	6.8	5.7
6	5.7	6.0	5.2	6.5	52	14	6.7	6.0	6.1	6.1	6.5	5.1
7	5.2	6.0	5.2	6.2	52	6.8	6.7	6.0	5.7	5.4	6.5	5.1
8	5.3	6.0	5.2	6.3	52	6.5	6.8	6.4	5.6	5.3	6.4	5.1
9	7.9	6.2	5.6	6.4	52	6.3	7.2	6.1	6.0	5.3	6.1	5.2
10	5.8	6.0	5.3	6.3	52	6.7	7.2	5.7	5.7	5.9	5.9	5.3
11	5.3	6.0	5.6	6.7	52	6.3	6.7	5.5	5.6	5.8	6.6	6.3
12	5.3	6.0	6.0	6.7	52	6.4	6.7	5.6	5.5	5.4	6.4	5.8
13	5.3	6.0	6.2	6.8	53	6.6	6.7	14	5.7	5.4	6.4	5.6
14	6.1	6.2	6.6	6.7	53	6.0	6.2	11	5.5	4.9	7.7	5.3
15	5.6	6.0	6.4	6.8	53	6.0	6.7	6.8	5.4	5.1	6.9	5.5
16	7.0	6.2	6.2	7.0	52	6.0	6.6	6.0	5.6	5.1	6.4	5.1
17	6.9	6.1	6.4	7.0	52	6.0	6.7	5.9	5.6	4.9	5.9	5.1
18	6.4	6.1	6.9	7.3	52	6.0	6.7	5.9	5.6	5.0	6.0	4.9
19	6.0	6.2	6.6	6.9	43	6.0	6.8	7.4	5.5	6.2	6.1	4.9
20	6.3	6.0	6.7	6.7	26	6.3	6.7	6.4	5.6	9.5	5.9	4.9
21	6.0	6.0	6.9	41	26	6.7	6.3	6.3	5.8	7.2	5.6	4.9
22	6.0	5.6	6.1	72	26	6.5	6.0	6.0	6.2	6.7	5.3	5.4
23	6.0	5.2	6.0	83	26	6.3	6.1	5.9	5.8	6.6	5.2	4.9
24	6.0	5.4	6.0	67	25	6.7	6.0	5.7	6.1	7.1	5.1	4.9
25	6.0	5.4	6.0	49	26	6.0	6.6	5.7	6.4	6.4	5.1	5.0
26	6.0	5.6	6.0	49	26	6.1	6.9	5.8	6.7	6.6	5.1	4.9
27	6.0	5.1	6.1	49	26	6.4	6.4	5.7	6.8	6.5	5.0	4.9
28	6.0	5.2	6.8	49	26	6.6	6.2	5.6	6.9	7.0	4.9	4.9
29	6.0	6.4	6.4	50	---	6.2	6.5	5.4	6.9	7.7	4.9	5.2
30	6.0	5.5	6.7	49	---	6.7	6.9	5.6	6.3	7.2	4.9	4.7
31	6.0	---	6.7	50	---	7.3	---	5.6	---	9.7	4.8	---
TOTAL	184.5	176.5	185.9	740.1	1214	293.4	201.8	200.0	179.4	196.6	187.2	154.8
MEAN	5.95	5.88	6.00	23.9	43.4	9.46	6.73	6.45	5.98	6.34	6.04	5.16
MAX	7.9	6.4	6.9	83	53	26	7.9	14	7.6	9.7	7.7	6.3
MIN	5.0	5.1	5.2	6.1	25	6.0	6.0	5.4	5.2	4.9	4.8	4.7
AC-FT	366	350	369	1470	2410	582	400	397	356	390	371	307

CAL YR 1984	TOTAL	5097.6	MEAN	13.9	MAX	120	MIN	4.2	AC-FT 10110
WTR YR 1985	TOTAL	3914.2	MEAN	10.7	MAX	83	MIN	4.7	AC-FT 7760

07079200 LEADVILLE DRAIN AT LEADVILLE, CO

LOCATION.--Lat 39°16'29", long 106°17'15", in SW¼SW¼ sec.12 T.9 S., R.80 W., Lake County, Hydrologic Unit 11020001, at Parshall flume, 500 ft below Leadville Drainage tunnel, 0.4 mi upstream from mouth and 1.6 mi north of courthouse in Leadville.

PERIOD OF RECORD.--October 1982 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH (STAND-ARD UNITS)	CALCIUM TOTAL RECOV-ERABLE (MG/L AS CA)	MAGNE-SIUM, TOTAL RECOV-ERABLE (MG/L AS MG)	SODIUM, TOTAL RECOV-ERABLE (MG/L AS NA)	POTAS-SIUM, TOTAL RECOV-ERABLE (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)
OCT												
02...	11:00	4.7	662	7.0	78	33	2.8	1.2	131	220	1.6	6
NOV												
06...	11:10	4.6	753	6.9	92	40	3.2	1.3	131	280	1.6	1
DEC												
03...	11:45	4.4	757	6.9	95	40	3.3	1.4	133	280	1.4	6
JAN												
07...	10:15	--	791	6.8	100	41	3.3	1.3	135	320	2.5	5
FEB												
04...	11:15	4.0	820	6.9	100	44	3.2	1.4	136	310	1.6	10
MAR												
04...	10:45	3.9	836	6.8	110	44	<10	1.7	135	330	1.7	8
APR												
01...	12:00	3.9	840	6.9	110	45	<10	1.4	134	340	1.6	<1
MAY												
06...	11:45	3.7	931	6.8	100	50	<10	1.5	126	380	1.0	8
JUN												
03...	11:15	3.8	870	6.7	100	46	3.4	1.4	115	360	1.7	1
JUL												
01...	11:30	4.0	737	6.9	88	40	2.8	1.3	115	260	1.7	8
AUG												
05...	12:30	4.3	659	6.9	72	30	0.2	1.2	124	220	1.5	1
SEP												
03...	11:30	4.4	697	6.9	87	36	6.0	1.5	128	230	1.4	6

DATE	TIME	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
OCT							
02...	11:00	14	<10	1400	6	1200	3100
NOV							
06...	11:10	15	<10	2000	3	1700	2000
DEC							
03...	11:45	--	<10	1700	6	1600	1500
JAN							
07...	10:15	10	10	2300	11	1900	4100
FEB							
04...	11:15	17	10	2300	18	1900	3700
MAR							
04...	10:45	13	10	2400	6	2100	3900
APR							
01...	12:00	13	40	2400	6	2000	3800
MAY							
06...	11:45	40	<10	2400	11	3800	7200
JUN							
03...	11:15	48	30	2300	6	4300	10000
JUL							
01...	11:30	45	30	2100	6	2400	5100
AUG							
05...	12:30	22	<10	1400	6	1400	3300
SEP							
03...	11:30	19	20	1600	8	1400	3300

07079300 EAST FORK ARKANSAS RIVER AT US HIGHWAY 24, NEAR LEADVILLE, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 39°16'21", long 106°18'21", in NW¼NW¼ sec 14, T.9 S., R.80 W., Lake County, Hydrologic Unit 11020001, at U. S. highway 24 bridge, 1.6 mi northwest of courthouse in Leadville.

PERIOD OF RECORD.--October 1982 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH (STAND-ARD UNITS)	CALCIUM TOTAL RECOV-ERABLE (MG/L AS CA)	MAGNE-SIUM, TOTAL RECOV-ERABLE (MG/L AS MG)	SODIUM, TOTAL RECOV-ERABLE (MG/L AS NA)	POTAS-SIUM, TOTAL RECOV-ERABLE (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)
OCT											
02...	10:45	250	8.0	27	11	1.7	1.1	84	37	0.7	3
NOV											
06...	10:55	252	--	32	14	1.8	0.8	88	54	0.5	<1
DEC											
03...	12:00	317	8.0	37	15	2.0	1.0	95	64	0.5	6
JAN											
07...	10:30	383	8.2	46	18	2.2	0.9	102	91	0.9	2
FEB											
04...	11:30	393	7.9	48	20	2.2	1.1	103	98	1.0	10
MAR											
04...	11:00	410	8.1	47	19	<10	1.2	105	100	0.9	28
APR											
01...	12:15	419	8.3	51	20	<10	1.0	103	110	0.8	<1
MAY											
06...	12:15	215	8.3	20	10	<10	1.1	60	42	0.6	6
JUN											
03...	11:30	134	7.5	14	6.1	1.1	0.9	45	15	0.5	10
AUG											
05...	12:45	199	7.8	21	12	2.6	0.8	66	25	0.9	<1

DATE	TIME	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
OCT							
02...	10:45	1	<10	300	<1	140	350
NOV							
06...	10:55	2	<10	280	<1	210	480
DEC							
03...	12:00	--	<10	--	5	300	280
JAN							
07...	10:30	2	80	390	4	430	890
FEB							
04...	11:30	5	<10	390	5	460	920
MAR							
04...	11:00	4	<10	700	<1	570	960
APR							
01...	12:15	5	30	410	1	500	870
MAY							
06...	12:15	1	<10	580	12	210	320
JUN							
03...	11:30	2	<10	610	7	120	240
AUG							
05...	12:45	1	<10	280	2	120	200

07082400 TURQUOISE LAKE NEAR LEADVILLE, CO

LOCATION.--Lat 39°15'10", long 106°22'26", in SW¼NE¼ sec.19, T.9 S., R.80 W., Lake County, Hydrologic Unit 11020001, in control house of Sugar Loaf Dam on Lake Fork, 4.0 mi west of Leadville and 4.6 mi upstream from mouth.

DRAINAGE AREA.--28.1 mi^2.

PERIOD OF RECORD.--April 1968 to current year.

GAGE.--Nonrecording gage read once daily. Datum of gage is 9,754.00 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations above National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir formed by earthfill dam completed in 1909, capacity,17,400 acre-ft. Enlargement of dam began Dec. 8, 1965, and closure was made Apr. 15, 1968. Enlarged capacity, 129,400 acre-ft at elevation 9,869.4 ft, crest of spillway. Dead storage, 2,770 acre-ft below elevation 9,765.90 ft, sill of lowest outlet. Figures given are total contents. Since Apr. 15,1968, Turquoise Lake has been a regulatory reservoir for the Fryingpan-Arkansas project and stores water imported from the Colorado River basin through Charles H. Boustead Tunnel for irrigation, municipal water supply, and power development. It also stores water for industrial use, and water imported from the Colorado River basin through Busk-Ivanhoe tunnel for irrigation and through Homestake tunnel for municipal water supply.

COOPERATION.--Records provided by U. S. Bureau of Reclamation.

EXTREMES (at 0800 of following day) FOR PERIOD OF RECORD.--Maximum contents, 131,820 acre-ft, July 10, 1983, elevation, 9,870.73 ft; minimum since appreciable storage was attained, 14,510 acre-ft, Oct. 1, 1968, elevation, 9,782.85 ft.

EXTREMES (at 0800 of the following day) FOR CURRENT YEAR.--Maximum contents, 128,770 acre-ft, July 22, elevation, 9,869.05 ft; minimum, 62,590 acre-ft, May 2, elevation, 9,828.12 ft.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	9,868.47	127,770	-
Oct. 31	9,868.62	128,040	+270
Nov. 30	9,868.84	126,650	-1,390
Dec. 31	9,867.49	126,000	-650
CAL YR 1984			+22,920
Jan. 31	9,862.31	116,910	-9,090
Feb. 28	9,849.90	95,940	-20,970
Mar. 31	9,842.50	84,020	-11,920
Apr. 30	9,828.61	63,280	-20,740
May 31	9,837.98	77,000	+13,720
June 30	9,868.55	127,880	+50,880
July 31	9,868.61	127,990	+110
Aug. 31	9,867.23	125,540	-2,450
Sept. 30	9,867.01	125,140	-400
WTR YR 1985			-2,630

07083000 HALFMOON CREEK NEAR MALTA, CO

(Hydrologic bench-mark station)

LOCATION.--Lat 39°10'20", long 106°23'19", in SE¼SE¼ sec.13, T.10 S., R.81 W., Lake County, Hydrologic Unit 11020001, on right bank 1.4 mi upstream from culvert, 3.3 mi upstream from mouth, and 4.3 mi southwest of Malta.

DRAINAGE AREA.--23.6 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1946 to current year.

REVISED RECORDS.--WSP 2121: Drainage area at site 1.4 mi downstream. WRD Colo. 1968: 1967 (M). WRD CO-79-1: 1976 (M). WRD CO-80-1: 1954 (M).

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 9,830 ft above National Geodetic Verticle Datum of 1929, from topographic map. Prior to Oct. 19, 1966, at sites 1.4 mi downstream at different datums.

REMARKS.--Estimated daily discharges: Oct. 26-29, Feb. 1 to Apr. 11, Sept. 17-18. Records good except those above 300 ft^3/s, which are fair, and those for periods of estimated daily discharges and winter record, which are poor. No regulation or diversion above station.

AVERAGE DISCHARGE.--39 years, 29.3 ft^3/s; 21,230 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 615 ft^3/s, June 30, 1984, gage height, 3.77 ft, from rating curve extended above 300 ft^3/s; minimum not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 29	1730	155	2.93	June 21	2130	247	3.23
June 8	1630	*575	*3.75	July 9	2030	159	2.95
June 15	1730	285	3.31	July 21	0200	194	3.08

Minimum daily discharge, 2.5 ft^3/s, Feb. 1-2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	12	6.9	4.6	2.5	6.6	6.1	29	93	83	55	18
2	18	12	6.4	4.1	2.5	6.8	6.0	37	108	92	56	19
3	19	12	6.1	4.4	2.6	6.4	6.2	48	113	101	51	18
4	24	11	6.0	4.4	2.7	6.0	6.4	59	123	109	48	19
5	22	13	5.5	4.6	2.9	6.0	6.6	58	159	110	46	19
6	22	12	7.2	4.6	2.8	6.6	6.8	57	209	108	43	17
7	22	14	7.2	4.6	3.0	7.0	7.2	63	280	105	42	16
8	22	10	7.5	4.9	3.3	7.0	7.4	73	384	95	39	15
9	21	8.5	8.8	4.4	3.6	6.8	7.8	70	311	108	39	15
10	21	10	8.2	4.1	4.0	6.6	8.0	63	223	118	45	14
11	21	9.9	7.8	4.1	3.7	6.5	8.5	52	172	101	52	16
12	21	9.9	7.5	3.9	3.6	6.4	9.5	44	175	106	49	19
13	21	9.5	6.9	4.1	4.0	6.2	9.9	39	191	122	43	16
14	21	8.8	6.0	4.4	4.8	6.0	11	41	209	107	39	15
15	19	7.2	5.6	4.6	5.8	6.0	16	36	219	95	36	16
16	19	8.5	5.1	4.4	7.0	5.8	19	38	227	88	33	16
17	21	8.8	4.6	4.4	6.8	5.8	24	39	227	99	31	15
18	18	8.2	4.9	3.3	6.6	5.8	26	44	215	92	32	14
19	15	7.2	4.6	3.5	6.0	6.0	25	46	188	91	30	13
20	15	6.9	4.6	3.7	5.8	6.2	21	42	185	101	28	13
21	14	7.2	4.9	4.1	5.6	6.0	19	43	193	153	26	13
22	14	8.5	4.9	4.1	5.6	6.8	16	48	179	134	25	13
23	14	8.2	4.4	3.5	6.0	7.0	14	55	166	121	24	12
24	13	8.5	4.9	3.2	5.4	7.2	14	75	164	105	23	13
25	13	7.5	4.9	3.2	5.8	7.4	13	99	174	89	22	11
26	12	7.2	5.1	3.3	6.0	7.4	12	108	139	75	20	15
27	12	6.9	5.1	3.7	6.0	7.0	14	121	99	71	20	13
28	13	8.2	5.5	3.2	6.4	6.6	17	131	90	65	20	11
29	13	7.5	5.5	3.2	---	6.4	18	135	93	61	19	11
30	13	6.7	5.1	2.9	---	6.2	21	119	86	57	18	14
31	14	---	5.1	2.7	---	6.1	---	97	---	57	18	---
TOTAL	545	275.8	182.8	122.2	130.8	200.6	396.4	2009	5394	3019	1072	449
MEAN	17.6	9.19	5.90	3.94	4.67	6.47	13.2	64.8	180	97.4	34.6	15.0
MAX	24	14	8.8	4.9	7.0	7.4	26	135	384	153	56	19
MIN	12	6.7	4.4	2.7	2.5	5.8	6.0	29	86	57	18	11
AC-FT	1080	547	363	242	259	398	786	3980	10700	5990	2130	891

CAL YR 1984	TOTAL	18149.4	MEAN	49.6	MAX	383	MIN	2.1	AC-FT 36000
WTR YR 1985	TOTAL	13796.6	MEAN	37.8	MAX	384	MIN	2.5	AC-FT 27370

07083000 HALFMOON CREEK NEAR MALTA, CO--Continued
(Hydrologic bench-mark station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.-- November 1966 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: May 1967 to September 1982.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 26.0°C Aug. 16, 1980; minimum, 0.0°C on many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)
OCT 29...	14:45	13	90	--	4.0	1.1	9.6	<1	<1	43
DEC 12...	12:00	7.6	95	8.0	0.0	1.0	7.6	<1	<1	44
FEB 14...	16:00	5.6	--	8.4	0.0	--	8.2	<2	450	49
15...	11:06	5.6	53	--	0.0	--	--	--	--	--
APR 11...	16:35	8.4	90	7.6	3.0	1.0	--	--	--	44
JUN 20...	15:15	157	58	--	5.0	--	--	--	--	--
21...	09:00	157	54	7.5	5.0	1.3	--	<4	<4	23
AUG 02...	12:00	56	--	7.3	9.0	E0.8	--	<1	<1	30
30...	09:35	18	87	--	8.0	--	--	--	--	--

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
OCT 29...	11	3.8	1.4	0.1	0.7	35	6.2	0.3	<0.1	6.1
DEC 12...	11	3.9	1.6	0.1	0.6	39	5.7	<0.2	<0.1	6.5
FEB 14...	12	4.6	2.7	0.2	0.8	41	8.1	0.6	0.1	7.4
15...	--	--	--	--	--	--	--	--	--	--
APR 11...	11	4.1	1.8	0.1	0.9	37	7.9	0.7	<0.1	6.4
JUN 20...	--	--	--	--	--	--	--	--	--	--
21...	6.1	2.0	0.8	0.1	0.5	18	3.3	0.2	<0.1	3.7
AUG 02...	7.9	2.6	1.1	0.1	0.6	26	4.3	0.2	0.1	4.1
30...	--	--	--	--	--	--	--	--	--	--

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)
OCT 29...	56	50	0.08	2.0	0.17	0.01	<0.2	0.01	0.01	<0.01
DEC 12...	49	--	--	--	0.18	<0.01	0.3	<0.01	<0.01	<0.01
FEB 14...	42	61	0.06	0.64	0.21	0.03	<0.2	<0.01	0.01	<0.01
15...	--	--	--	--	--	--	--	--	--	--
APR 11...	57	55	0.08	1.3	0.54	0.02	0.6	0.01	0.01	<0.01
JUN 20...	--	--	--	--	--	--	--	--	--	--
21...	25	27	0.03	11	0.18	0.06	0.3	<0.01	<0.01	<0.01
AUG 02...	43	37	0.06	6.5	0.12	0.03	0.3	0.01	<0.01	<0.01
30...	--	--	--	--	--	--	--	--	--	--

E ESTIMATED.

07083000 HALFMOON CREEK NEAR MALTA, CO--Continued
(Hydrologic bench-mark station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LITHIUM DISSOLVED (UG/L AS LI)
DEC										
12...	<10	<1	29	<0.5	<1	2	<3	2	40	<4
APR										
11...	20	<1	18	0.5	<1	<1	<3	2	57	<4

DATE	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)
DEC										
12...	1	9	<0.1	<10	<2	<1	1	75	<6	30
APR										
11...	5	<1	--	<10	1	<1	<1	75	<6	25

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	URANIUM DISSOLVED, EXTRACTION (UG/L)
DEC									
12...	12:00	<11	<0.4	<8.8	<0.4	<10	<0.4	0.03	0.04

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DEC					
12...	12:00	7.6	2	0.04	--
APR					
11...	16:35	8.4	0	--	--
JUN					
21...	09:00	157	17	7.2	49
AUG					
02...	12:00	56	4	0.6	55

Streamflow data for water year 1985 for the following stations will be published in a subsequent report.

ARKANSAS RIVER BASIN

07084500 LAKE CREEK ABOVE TWIN LAKES RESERVOIR, CO

ARKANSAS RIVER BASIN

07086000 ARKANSAS RIVER AT GRANITE, CO

07086500 CLEAR CREEK ABOVE CLEAR CREEK RESERVOIR, CO

LOCATION.--Lat 39°01'05", long 106°16'38", in SE¼ sec.12, T.12 S., R.80 W., Chaffee County, Hydrologic Unit 11020001, on right bank 0.5 mi upstream from water line of Clear Creek Reservoir at elevation 8,875 ft, 1.5 mi downstream from unnamed tributary, and 1.9 mi southwest of Granite.

DRAINAGE AREA.--67.1 mi².

PERIOD OF RECORD.--May 1946 to September 1983. Monthly discharge only for some periods, published in WSP 1241, and 1311.

REVISED RECORDS.--WSP 2121: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 8,885 ft, from topographic map. May 7, 1946, to Apr. 20, 1954, water-stage recorder at site 133 ft upstream at different datum. Apr. 21 1954, to May 28, 1958, water-stage recorder 333 ft upstream at different datum. Datum raised 2.19 ft, Apr. 21, 1954.

REMARKS.--Estimated daily discharges: Water Year 1982, Nov. 10-13, Nov. 19 to Apr. 23. Water year 1983, Nov. 15 to May 11. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 250 acres above station.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--36 years (water years 1947-62, 1964-82), 66.7 ft³/s; 48,520 acre-ft/yr: 37 years (water years 1947-62, 1964-83), 66.8 ft³/s; 48,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,300 ft³/s, June 29, 1957, maximum gage height recorded, 4.34 ft, June 16, 1952, site and datum then in use; minimun discharge, not determined.

EXTREMES FOR WATER YEAR 1982.--Maximum discharge, 432 ft³/s at 0300 June 18, gage height, 1.83 ft; minimum daily, 8.0 ft³/s, Feb. 6.

EXTREMES FOR WATER YEAR 1983.--Maximum discharge, 598 ft³/s at 0030 June 25, gage height, 2.10 ft; minimum daily, 6.0 ft³/s, Feb. 2-7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	22	15	15	14	13	15	40	155	352	144	70
2	34	25	15	12	11	14	15	46	155	342	137	66
3	38	24	15	13	10	16	13	60	169	318	133	63
4	38	22	16	13	10	14	15	78	171	300	125	64
5	39	22	16	14	9.0	11	16	75	200	279	119	69
6	36	22	17	14	8.0	11	15	62	207	256	121	68
7	36	22	17	11	10	12	16	54	205	245	119	64
8	37	22	17	12	11	12	13	53	225	225	111	63
9	36	21	16	14	11	12	15	50	234	245	106	63
10	35	18	16	16	12	13	14	51	259	234	104	62
11	34	19	16	16	11	13	17	53	262	236	104	68
12	35	19	16	15	11	13	19	55	282	234	119	88
13	34	20	16	14	12	12	17	52	282	239	113	85
14	34	20	15	14	14	13	17	48	282	231	113	78
15	36	19	16	15	14	13	17	48	288	218	104	76
16	37	18	16	15	13	11	17	49	306	200	100	81
17	32	18	15	16	13	11	15	49	380	202	99	85
18	31	18	13	16	12	12	15	49	394	197	106	85
19	31	15	15	16	12	12	14	53	306	183	100	85
20	30	13	17	15	12	11	13	54	279	173	93	92
21	30	15	17	14	13	10	12	59	315	171	90	93
22	29	16	16	13	16	10	13	69	356	169	92	92
23	27	17	14	13	16	12	14	78	342	164	88	90
24	28	16	12	14	15	12	16	97	348	162	95	88
25	27	18	14	15	15	14	16	104	376	157	93	85
26	26	16	15	16	13	15	18	102	366	148	92	85
27	27	15	15	17	13	14	19	123	370	148	86	85
28	26	14	15	15	15	15	21	125	387	176	83	83
29	27	16	15	14	---	17	26	146	376	195	80	81
30	26	16	16	13	---	15	34	142	362	197	75	85
31	24	---	16	14	---	13	---	137	---	162	74	---
TOTAL	994	558	480	444	346.0	396	497	2261	8639	6758	3218	2342
MEAN	32.1	18.6	15.5	14.3	12.4	12.8	16.6	72.9	288	218	104	78.1
MAX	39	25	17	17	16	17	34	146	394	352	144	93
MIN	24	13	12	11	8.0	10	12	40	155	148	74	62
AC-FT	1970	1110	952	881	686	785	986	4480	17140	13400	6380	4650

CAL YR 1981 TOTAL 14060.8 MEAN 38.5 MAX 285 MIN 7.0 AC-FT 27890
WTR YR 1982 TOTAL 26933.0 MEAN 73.8 MAX 394 MIN 8.0 AC-FT 53420

NOTE.--NO GAGE-HEIGHT RECORD NOV. 19 TO APR. 23

07086500 CLEAR CREEK ABOVE CLEAR CREEK RESERVOIR, CO--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	32	21	14	7.0	10	10	18	146	291	155	86
2	81	31	19	14	6.0	10	10	20	137	279	146	81
3	78	29	19	13	6.0	10	10	21	133	279	173	81
4	74	28	20	12	6.0	10	9.0	21	151	265	185	78
5	70	29	20	13	6.0	10	8.0	22	169	259	197	70
6	69	27	21	13	6.0	9.0	9.0	23	171	262	248	68
7	68	26	20	12	6.0	8.0	9.0	23	185	276	207	66
8	64	27	20	12	7.0	9.0	9.0	24	223	279	176	64
9	60	26	22	11	7.0	10	10	26	220	273	155	63
10	60	26	21	11	7.0	12	11	26	234	268	137	60
11	60	26	21	12	7.0	12	10	26	297	245	127	59
12	58	26	22	13	8.0	11	10	25	303	239	125	56
13	58	24	21	13	9.0	11	9.0	24	223	215	121	54
14	54	22	19	13	8.0	11	8.5	22	195	207	123	55
15	55	24	20	13	8.0	11	9.0	22	223	188	133	55
16	55	23	21	11	8.0	10	9.0	22	256	178	135	51
17	50	23	22	9.5	8.0	9.0	9.5	20	282	176	117	51
18	49	23	21	8.0	10	9.0	10	19	352	169	117	49
19	49	22	20	7.0	10	10	11	22	415	164	117	49
20	49	21	19	7.5	10	11	11	38	415	164	131	50
21	45	22	19	7.0	10	11	11	34	415	173	111	48
22	45	22	18	7.0	10	11	11	35	408	183	100	45
23	45	21	18	7.0	10	11	12	48	390	183	95	44
24	45	22	18	7.0	11	11	13	62	440	166	90	42
25	45	21	16	7.0	10	10	14	85	422	153	90	40
26	45	21	15	7.5	10	9.0	14	111	387	157	90	39
27	45	21	16	9.0	10	10	14	146	345	171	90	38
28	40	20	15	8.5	10	10	15	180	309	144	88	37
29	37	21	14	8.5	---	10	16	202	312	131	95	37
30	36	21	13	8.0	---	11	16	185	282	133	97	42
31	34	---	14	7.5	---	11	---	153	---	133	100	---
TOTAL	1716	727	585	316.0	231.0	318.0	328.0	1705	8440	6403	4071	1658
MEAN	55.4	24.2	18.9	10.2	8.25	10.3	10.9	55.0	281	207	131	55.3
MAX	93	32	22	14	11	12	16	202	440	291	248	86
MIN	34	20	13	7.0	6.0	8.0	8.0	18	133	131	88	37
AC-FT	3400	1440	1160	627	458	631	651	3380	16740	12700	8070	3290

CAL YR 1982 TOTAL 27929.0 MEAN 76.5 MAX 394 MIN 8.0 AC-FT 55400
WTR YR 1983 TOTAL 26498.0 MEAN 72.6 MAX 440 MIN 6.0 AC-FT 52560

NOTE.--NO GAGE-HEIGHT RECORD NOV. 15 TO MAY 11

07089000 COTTONWOOD CREEK BELOW HOT SPRINGS, NEAR BUENA VISTA, CO

LOCATION.--Lat 38°48'46", long 106°13'18", in SE¼SE¼ sec.21, T.14 S., R.79 W., Chaffee County, Hydrologic Unit 11020001, on left bank 0.2 mi downstream from Cottonwood Hot Springs, 0.9 mi downstream from confluence of Middle Cottonwood and South Cottonwood Creeks, 2.9 mi upstream from North Cottonwood Creek, and 5.5 mi southwest of Buena Vista.

DRAINAGE AREA.--65.0 mi².

PERIOD OF RECORD.--October 1910 to September 1923, August 1949 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1177: 1915, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 8,532 ft, from river-profile survey. Prior to Oct. 1, 1923, nonrecording gage near present site at different datum.

REMARKS.--Estimated daily discharges: Oct.23 to Dec. 5, June 18-20. Records good except those for period of estimated daily discharges Oct. 23 to Dec. 5, which are poor. Several small diversions above station for irrigation. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--49 years (water years 1911-23, 1950-85), 55.8 ft³/s; 40,430 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,180 ft³/s, July 1, 1957, gage height, 4.52 ft, from floodmarks, from rating curve extended above 690 ft³/s; minimum observed, 10 ft³/s, Mar. 20-23, 25, Apr. 9, 19, 1914.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
June 6	2130	387	2.88	June 11	0100	*407	*2.93

Minimum daily discharge, 18 ft³/s, Mar. 31-Apr. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	29	28	27	24	21	18	39	151	145	76	45
2	23	28	28	27	24	21	20	52	175	134	79	46
3	24	28	28	27	26	21	21	66	193	162	76	48
4	29	28	28	27	25	21	21	83	197	157	73	49
5	27	28	28	27	24	21	20	92	232	154	71	47
6	25	29	28	28	24	21	20	92	276	148	71	45
7	24	29	28	27	24	21	20	86	364	144	69	44
8	23	29	28	28	24	21	21	95	344	141	67	45
9	23	29	28	28	24	21	23	92	333	136	64	44
10	23	29	29	27	24	21	23	93	352	137	63	43
11	23	29	29	27	24	20	23	91	349	132	60	45
12	23	29	29	27	24	21	24	79	315	130	61	53
13	23	29	29	27	24	21	26	67	329	143	61	47
14	24	29	29	27	24	20	27	54	329	134	59	45
15	23	29	29	27	24	21	30	56	317	127	57	49
16	22	29	29	26	23	21	35	62	318	111	56	56
17	22	29	29	26	23	21	38	67	307	104	54	43
18	23	29	29	26	23	21	42	72	290	114	55	41
19	23	29	29	26	23	21	41	79	270	105	57	50
20	23	29	29	26	22	20	33	73	250	121	54	49
21	24	29	28	26	22	20	31	74	233	136	52	49
22	27	29	27	27	22	20	29	73	233	146	52	48
23	30	29	28	26	22	19	27	79	217	126	49	47
24	35	29	29	26	22	20	27	99	208	114	48	52
25	34	29	28	26	22	20	28	107	213	109	48	51
26	33	28	28	26	22	20	29	129	206	103	48	47
27	32	28	28	26	22	20	27	144	173	88	47	46
28	31	28	27	26	22	20	31	189	165	79	48	48
29	30	28	27	25	---	20	34	201	170	91	47	51
30	30	28	27	25	---	19	33	210	149	86	46	45
31	29	---	27	24	---	18	---	173	---	77	45	---
TOTAL	808	861	875	821	653	633	822	2968	7658	3834	1813	1418
MEAN	26.1	28.7	28.2	26.5	23.3	20.4	27.4	95.7	255	124	58.5	47.3
MAX	35	29	29	28	26	21	42	210	364	162	79	56
MIN	22	28	27	24	22	18	18	39	149	77	45	41
AC-FT	1600	1710	1740	1630	1300	1260	1630	5890	15190	7600	3600	2810

CAL YR 1984 TOTAL 25813 MEAN 70.5 MAX 323 MIN 15 AC-FT 51200
WTR YR 1985 TOTAL 23164 MEAN 63.5 MAX 364 MIN 18 AC-FT 45950

07093700 ARKANSAS RIVER NEAR WELLSVILLE, CO

LOCATION.--Lat 38°30'10", long 105°56'21", in SW¼NE¼ sec.14, T.49 N., R.9 E., Chaffee County, Hydrologic Unit 11020001, on right bank 50 ft upstream from Chaffee-Fremont County line, 2.0 mi northwest of Wellsville, 2.8 mi downstream from South Arkansas River, and 3.5 mi southeast of Salida.

DRAINAGE AREA.--1,485 mi^2.

PERIOD OF RECORD.--April 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,883.4 ft above National Geodetic Vertical Datum of 1929 (river-profile survey).

REMARKS.--No estimated daily discharges. Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, diversions for irrigation of about 26,000 acres, and return flow from irrigated areas.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey).

AVERAGE DISCHARGE.--24 years, 732 ft^3/s; 530,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,240 ft^3/s, June 12, 1980, gage height, 8.02 ft; maximum gage height, 8.12 ft, June 10, 1984; minimum daily discharge, 110 ft^3/s, Jan. 12, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,020 ft^3/s at 0900 June 10, gage height, 8.12; minimum daily, 307 ft^3/s, Mar. 9, 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	535	650	449	367	698	710	800	1020	2030	1900	1160	526
2	526	600	440	323	665	670	824	1160	1910	1860	1160	521
3	530	635	418	347	740	660	866	1330	1910	1800	1120	467
4	630	640	440	347	758	640	628	1480	1980	1790	1070	462
5	716	615	426	355	728	454	413	1720	2280	1790	1020	462
6	698	640	436	363	734	323	387	1900	2840	1830	914	462
7	872	610	440	371	740	323	408	1880	3800	1900	842	458
8	878	550	490	379	752	311	440	1900	5000	1970	812	458
9	854	540	508	383	752	307	462	1990	5760	1830	776	454
10	812	540	512	355	746	315	467	2030	5660	1830	770	449
11	794	555	503	339	722	327	472	1910	4600	1800	746	467
12	782	565	503	339	716	335	494	1760	3980	1650	704	550
13	630	570	485	319	722	319	530	1340	3610	1740	686	560
14	615	560	467	335	728	311	535	1120	3510	1750	670	530
15	655	512	490	339	728	307	575	962	3690	1710	680	516
16	665	535	476	327	746	723	620	927	3690	1660	665	467
17	692	530	467	327	746	764	625	920	3660	1620	640	431
18	716	526	449	323	752	770	655	1070	3610	1580	630	426
19	962	516	449	367	746	788	716	1190	3460	1630	635	436
20	1000	498	444	323	740	782	645	1190	3290	1790	625	449
21	983	472	426	359	740	788	595	1200	3050	2040	610	485
22	976	467	400	570	740	794	570	1090	3020	2520	625	444
23	806	503	395	758	728	764	545	1020	2870	2710	620	449
24	704	516	387	764	710	776	508	1070	2670	2380	800	467
25	675	526	375	770	704	782	503	1050	2780	2060	818	485
26	665	508	383	782	704	788	843	1480	2760	1810	595	490
27	716	462	404	794	710	770	866	1660	2310	1690	560	467
28	728	476	413	776	710	782	927	1940	2030	1570	565	454
29	716	485	404	746	---	818	976	2730	1940	1740	560	498
30	860	449	375	746	---	776	1000	2660	1980	1420	555	512
31	866	---	422	740	---	794	---	2430	---	1300	530	---
TOTAL	23257	16251	13676	14733	20405	18771	18895	47129	95680	56670	23163	14302
MEAN	750	542	441	475	729	606	630	1520	3189	1828	747	477
MAX	1000	650	512	794	758	818	1000	2730	5760	2710	1160	560
MIN	526	449	375	319	665	307	387	920	1910	1300	530	426
AC-FT	46130	32230	27130	29220	40470	37230	37480	93480	189800	112400	45940	28370

CAL YR 1984 TOTAL 431999 MEAN 1180 MAX 4880 MIN 258 AC-FT 856900
WTR YR 1985 TOTAL 362932 MEAN 994 MAX 5760 MIN 307 AC-FT 719900

07093740 BADGER CREEK, UPPER STATION, NEAR HOWARD, CO

LOCATION.--Lat 38°39'25", long 105°48'45", in SE¼NE¼ sec.24, T.51 N., R.10 E., Fremont County, Hydrologic Unit 11020001, on left bank 0.4 mi downstream from County Road 2, 0.7 mi upstream from Steer Creek, 14.0 mi north of Howard, and 14.3 mi upstream from mouth.

DRAINAGE AREA.--106 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1980 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 8,780 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Mar. 27 to Apr. 9. Records good except those between 20 and 250 ft^3/s, which are fair, and those for estimated daily discharges, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,360 ft^3/s, Aug. 14, 1983, gage height, 8.22 ft, result of indirect determination of peak flow; minimum daily, 2.8 ft^3/s, Jan. 29 to Mar. 2, 1984, Dec. 1, 1984, Jan. 31 to Feb. 1, and Feb. 11, 1985.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 15	2030	62	5.35	July 20	2100	42	5.30
Apr. 29	2315	21	4.58	July 28	1500	30	5.09
July 19	1945	*218	*6.48	July 30	1200	59	5.53

Minimum daily discharge, 2.8 ft^3/s, Dec. 1, Jan. 31 to Feb. 1, Feb. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	4.1	2.8	3.5	2.8	5.5	8.5	16	7.0	3.8	4.5	4.7
2	4.2	4.0	3.0	3.5	2.9	5.8	9.0	14	7.0	3.8	4.3	4.8
3	4.4	4.0	3.5	3.2	2.9	6.2	9.5	13	7.0	3.7	4.4	4.7
4	5.3	3.9	3.7	3.1	3.0	6.4	12	13	7.3	3.8	4.3	4.7
5	6.1	3.9	3.7	3.0	3.0	6.4	11	12	7.5	3.8	4.3	4.7
6	5.3	4.0	3.7	3.0	3.0	6.6	20	12	7.5	3.8	4.2	4.6
7	5.2	4.0	3.5	3.0	3.0	7.0	40	12	7.0	3.9	4.1	4.5
8	5.1	4.1	3.5	3.0	3.1	7.3	55	11	6.8	3.9	4.1	4.5
9	5.1	4.2	3.5	3.3	3.1	7.8	43	10	6.4	4.1	4.1	4.4
10	5.1	3.6	3.4	3.4	3.0	9.2	36	10	6.3	4.2	4.1	4.3
11	5.2	3.5	3.4	3.4	2.8	10	36	9.7	6.2	4.0	4.1	4.4
12	5.2	3.8	3.5	3.5	3.0	9.6	34	9.6	5.9	4.0	4.2	4.6
13	5.4	4.0	3.5	3.4	3.0	8.1	31	10	5.7	3.9	4.2	4.5
14	5.7	4.1	3.6	3.3	3.0	8.4	33	9.8	5.6	4.0	4.2	4.5
15	5.6	3.9	3.7	3.2	3.2	8.3	38	9.1	5.3	4.2	4.3	4.4
16	4.7	3.8	3.7	3.2	3.5	7.9	32	8.7	5.2	4.1	4.4	4.3
17	4.7	4.2	3.6	3.0	3.5	7.9	31	9.2	4.8	4.1	4.4	4.1
18	4.7	4.4	3.6	3.0	3.6	8.7	24	9.9	4.6	4.0	4.4	4.1
19	5.2	4.2	3.7	3.0	3.7	9.5	19	9.4	5.0	21	4.4	4.2
20	5.7	3.8	3.6	3.0	4.0	8.9	14	8.9	5.0	21	4.5	4.2
21	5.9	3.6	3.4	3.0	4.1	8.5	14	11	4.6	11	4.6	4.4
22	5.9	3.5	3.3	3.0	4.1	8.0	13	11	4.4	9.2	4.7	4.4
23	5.9	3.9	3.2	3.0	4.3	7.4	12	9.7	4.2	7.7	4.7	4.3
24	5.3	4.1	3.2	3.0	4.5	7.8	13	8.8	4.1	6.7	4.8	4.2
25	4.2	4.3	3.0	2.9	4.6	8.9	13	8.5	4.0	6.5	4.8	4.0
26	4.1	3.9	3.0	3.0	4.8	9.0	12	8.3	3.9	6.6	4.8	4.1
27	4.0	3.7	3.0	2.9	4.8	6.6	12	8.0	4.1	9.0	4.8	4.1
28	4.0	3.7	3.1	2.9	5.2	7.5	15	7.6	4.2	9.2	4.9	4.0
29	4.0	4.1	3.2	2.9	---	7.5	18	7.1	4.0	9.3	4.9	4.4
30	4.0	3.2	3.3	2.9	---	8.0	17	6.9	3.9	6.5	4.8	4.7
31	4.1	---	3.5	2.8	---	8.5	---	6.9	---	5.0	4.8	---
TOTAL	153.5	117.5	105.4	96.3	99.5	243.2	675.0	311.1	164.5	199.8	138.1	131.8
MEAN	4.95	3.92	3.40	3.11	3.55	7.85	22.5	10.0	5.48	6.45	4.45	4.39
MAX	6.1	4.4	3.7	3.5	5.2	10	55	16	7.5	21	4.9	4.8
MIN	4.0	3.2	2.8	2.8	2.8	5.5	8.5	6.9	3.9	3.7	4.1	4.0
AC-FT	304	233	209	191	197	482	1340	617	326	396	274	261

CAL YR 1984 TOTAL 1835.6 MEAN 5.02 MAX 19 MIN 2.8 AC-FT 3640
WTR YR 1985 TOTAL 2435.7 MEAN 6.67 MAX 55 MIN 2.8 AC-FT 4830

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1981 to current year (seasonal record only).

PERIOD OF DAILY RECORD.--Suspended sediment discharge June 1981 to current year (seasonal only).

INSTRUMENTATION.--Pumping sediment sampler since June 1981, set to collect sample every twelve hours or on stage.

REMARKS.--In addition to automatic sampler, EWI samples are collected by local observer who also exchanges bottles in sampler on a predetermined interval. Sediment data for 1985 is considered poor.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily, 25,800 mg/L Aug. 20, 1982; minimum daily, 5 mg/L July 12, 1983.
SEDIMENT LOADS: Maximum daily, 15,600 tons Aug. 14, 1983; minimum daily, 0.05 ton Sept. 20-22, 1981, July 12, 1983.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily, 14,900 mg/L JULY 20; minimum daily, 6 mg/L Aug. 20.
SEDIMENT LOADS: Maximum daily, 2,780 tons July 19; minimum daily, 0.07 tons Aug. 20.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
APR					
10...	16:00	37	3160	316	--
29...	14:45	16	180	8.0	83
JUN					
05...	13:45	7.6	24	0.49	54
17...	09:30	4.8	20	0.26	39
JUL					
02...	12:00	3.5	37	0.35	31
25...	12:50	6.7	86	1.6	64
AUG					
05...	11:15	4.3	12	0.14	--
08...	09:45	4.1	20	0.22	23
20...	11:25	4.5	6	0.07	--
SEP					
25...	13:00	4.1	35	0.39	30

07093775 BADGER CREEK, LOWER STATION NEAR HOWARD, CO

LOCATION.--Lat 38°28'02", long 105°51'34", in SW¼SW¼ sec.27, T.49 N., R.10 E., Fremont County, Hydrologic Unit 11020001, on left bank 660 ft upstream from Denver and Rio Grande Railroad bridge, 960 ft upstream from mouth, and 1.9 mi northwest of Howard.

DRAINAGE AREA.--211 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1980 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,780 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to May 19, 1983, at site 360 ft downstream at datum 5.07 ft, lower.

REMARKS.--Estimated daily discharges: Nov. 23, Dec. 2-6, 15-31, Jan. 1-6, Jan. 10 to Feb. 14, Feb. 23, 24, 27, and Mar. 4-5. Records good except for estimated daily discharges, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,470 ft³/s, July 28, 1984, gage height, 8.05 ft, (from floodmark) from rating curve extended above 1,950 ft³/s; minimum daily, 0.56 ft³/s, Feb. 4, 5, 1982.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 40 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Apr. 7	2330	199	5.44	July 18	1700	*260	*5.65
Apr. 15	2245	93	4.97	July 19	2100	117	5.05
May 6	1430	42	4.43	July 20	0100	88	4.85

Minimum daily discharge, 3.5 ft³/s, Feb. 1-2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	8.3	7.4	5.0	3.5	4.7	11	37	23	7.3	10	6.3
2	4.8	8.2	6.4	4.5	3.5	4.8	12	31	23	6.8	12	6.4
3	5.6	8.1	6.0	4.7	3.6	4.6	13	30	23	6.5	9.8	7.2
4	9.1	7.4	6.4	5.2	3.7	4.5	16	33	24	5.7	9.0	7.4
5	8.9	7.2	6.2	5.6	3.8	4.5	15	32	23	5.4	7.4	7.5
6	6.6	7.5	7.0	6.1	4.2	4.4	20	36	22	5.1	7.4	7.2
7	5.5	7.3	8.6	6.6	4.5	4.3	68	35	21	4.6	7.0	7.2
8	5.4	7.4	7.4	7.2	5.0	4.5	77	30	20	4.6	6.2	7.5
9	5.0	7.5	6.6	7.3	4.8	4.5	55	30	18	5.3	6.2	7.3
10	4.6	6.6	6.6	6.6	4.6	5.4	52	31	17	6.1	6.2	7.1
11	4.7	6.2	6.6	5.8	4.5	7.8	51	28	17	4.8	7.0	8.2
12	4.7	7.0	6.6	5.4	4.6	11	50	26	16	4.5	6.6	8.2
13	5.0	6.6	7.8	5.4	4.8	9.5	47	33	15	4.9	6.2	6.9
14	6.0	6.8	7.4	5.8	5.1	10	54	32	14	4.1	6.2	6.3
15	9.5	6.3	7.6	6.0	5.7	10	62	26	14	4.5	7.0	6.1
16	7.1	5.9	7.5	6.2	4.9	10	58	21	12	4.4	6.6	6.4
17	8.0	6.7	7.4	6.6	4.7	9.5	52	23	13	4.1	6.2	6.0
18	7.6	6.8	7.2	6.8	4.6	9.5	48	29	14	13	6.2	6.4
19	7.2	6.4	6.6	7.0	4.7	11	33	23	13	11	6.2	7.5
20	7.3	5.5	6.2	6.8	4.3	11	21	20	12	33	5.9	7.3
21	7.3	5.2	6.2	6.5	4.4	10	21	28	11	19	6.2	8.4
22	8.0	5.2	6.2	5.8	4.5	10	20	33	9.9	11	6.2	8.0
23	9.2	5.4	6.5	5.6	4.4	9.5	17	27	8.6	12	6.2	8.2
24	10	5.8	6.6	5.6	4.4	9.5	18	22	8.8	8.8	6.2	8.1
25	9.5	6.2	6.4	5.7	4.6	12	20	21	9.5	9.2	6.2	8.1
26	9.2	5.5	6.6	5.8	4.7	16	19	21	8.6	10	6.4	8.3
27	8.8	5.2	7.0	6.0	4.9	16	18	20	9.2	14	6.4	8.2
28	8.5	5.8	7.4	5.8	5.1	14	25	18	8.4	19	6.4	7.8
29	8.4	7.0	7.0	5.5	---	11	34	19	7.9	29	6.6	9.6
30	8.2	6.6	6.2	5.0	---	10	35	19	7.9	21	6.6	9.4
31	8.6	---	6.0	4.2	---	10	---	21	---	14	6.2	---
TOTAL	223.5	197.6	211.6	182.1	126.1	273.5	1042	835	443.8	312.7	214.9	224.5
MEAN	7.21	6.59	6.83	5.87	4.50	8.82	34.7	26.9	14.8	10.1	6.93	7.48
MAX	10	8.3	8.6	7.3	5.7	16	77	37	24	33	12	9.6
MIN	4.6	5.2	6.0	4.2	3.5	4.3	11	18	7.9	4.1	5.9	6.0
AC-FT	443	392	420	361	250	542	2070	1660	880	620	426	445

CAL YR 1984	TOTAL	3445.6	MEAN	9.41	MAX	143	MIN	3.4	AC-FT	6830
WTR YR 1985	TOTAL	4287.3	MEAN	11.7	MAX	77	MIN	3.5	AC-FT	8500

07093775 BADGER CREEK, LOWER STATION, NEAR HOWARD, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1981 to current year (seasonal record only).

PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT DISCHARGE: May 1981 to current year (seasonal record only).

INSTRUMENTATION.--Pumping sediment sampler since May 1981.

REMARKS.--In addition to pumping sediment sampler, samples are collected by local observer who also exchanges sediment bottles in sampler on a prescribed interval. Sediment discharge record is considered fair.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily, 15,400 mg/L (estimated) Aug. 21, 1982; minimum daily, 1 mg/L, Sept. 22, 1981.
SEDIMENT LOADS: Maximum daily, 31,500 tons (estimated) July 28, 1984; minimum daily, no load Sept. 12-30, 1981.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily, 10,800 mg/L July 20; minimum daily, 3 mg/L on many days Aug. 30 to Sept. 28.
SEDIMENT LOADS: Maximum daily, 1,970 tons July 20; minimum daily, 0.05 tons on many days Aug.31 to Sept.18.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
APR					
17...	12:50	40	244	26	57
MAY					
14...	14:20	29	57	4.5	71
JUN					
18...	13:45	14	12	0.45	58
JUL					
01...	13:10	7.8	9	0.19	42
29...	13:05	30	453	37	78
AUG					
05...	12:30	7.0	77	1.5	77
20...	14:00	8.2	9	0.2	70
30...	15:10	7.0	3	0.06	60
SEP					
16...	11:10	6.2	3	0.05	88

07093775 BADGER CREEK, LOWER STATION, NEAR HOWARD, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	11	---	8.9	37	76	7.6	23	101	6.3
2	12	---	9.7	31	67	5.6	23	123	7.6
3	13	---	12	30	57	4.6	23	221	14
4	16	---	22	33	65	5.8	24	483	31
5	15	---	24	32	60	5.2	23	---	27
6	20	---	109	36	58	5.6	22	182	11
7	68	---	965	35	---	6.0	21	---	8.5
8	77	---	781	30	---	4.0	20	---	7.0
9	55	---	435	30	---	3.6	18	---	5.3
10	52	---	407	31	48	4.0	17	---	4.2
11	51	---	366	28	---	2.6	17	---	3.7
12	50	---	436	26	---	2.1	16	---	3.0
13	47	---	313	33	73	6.5	15	---	2.3
14	54	---	511	32	57	4.9	14	---	2.0
15	62	---	598	26	---	2.8	14	---	1.7
16	58	---	392	21	---	1.7	12	---	1.3
17	52	1950	346	23	93	5.9	13	---	1.3
18	48	2030	354	29	124	9.7	14	---	1.2
19	33	280	25	23	120	7.5	13	---	1.0
20	21	270	15	20	106	6.2	12	---	.91
21	21	200	11	28	273	21	11	26	.77
22	20	66	3.6	33	301	27	9.9	---	.67
23	17	---	2.3	27	85	6.2	8.6	---	.56
24	18	---	3.3	22	---	2.4	8.8	---	.55
25	20	---	4.2	21	---	1.7	9.5	---	.56
26	19	---	3.3	21	---	1.5	8.6	---	.51
27	18	1110	49	20	---	1.4	9.2	---	.52
28	25	---	35	18	---	1.2	8.4	---	.45
29	34	---	159	19	---	1.3	7.9	---	.41
30	35	105	9.9	19	---	1.5	7.9	---	.38
31	---	---	---	21	87	4.9	---	---	---
TOTAL	1042	---	6410.2	835	---	172.0	443.8	---	145.69
		JULY			AUGUST			SEPTEMBER	
1	7.3	---	.32	10	---	2.6	6.3	---	.05
2	6.8	---	.28	12	---	4.0	6.4	---	.05
3	6.5	---	.25	9.8	---	2.2	7.2	---	.12
4	5.7	---	.20	9.0	---	1.9	7.4	---	.16
5	5.4	---	.17	7.4	77	1.5	7.5	---	.20
6	5.1	---	.15	7.4	---	1.2	7.2	---	.12
7	4.6	---	.14	7.0	---	.47	7.2	5	.10
8	4.6	---	.12	6.2	---	.25	7.5	---	.12
9	5.3	---	.27	6.2	---	.25	7.3	---	.08
10	6.1	25	.41	6.2	---	.25	7.1	---	.06
11	4.8	---	.26	7.0	---	2.4	8.2	---	1.4
12	4.5	13	.16	6.6	---	1.8	8.2	7	.15
13	4.9	---	.20	6.2	---	1.1	6.9	---	.09
14	4.1	14	.15	6.2	50	.84	6.3	---	.07
15	4.5	---	.19	7.0	---	.47	6.1	---	.05
16	4.4	13	.15	6.6	---	.29	6.4	3	.05
17	4.1	---	.14	6.2	---	.23	6.0	---	.05
18	13	6320	1970	6.2	---	.20	6.4	---	.05
19	11	7430	1150	6.2	11	.18	7.5	5	.10
20	33	10800	1640	5.9	9	.14	7.3	---	.08
21	19	2140	126	6.2	7	.12	8.4	---	.20
22	11	---	5.9	6.2	13	.22	8.0	---	.15
23	12	---	6.8	6.2	5	.08	8.2	---	.13
24	8.8	---	4.0	6.2	---	.12	8.1	---	.11
25	9.2	180	4.5	6.2	---	.10	8.1	---	.11
26	10	---	5.7	6.4	---	.10	8.3	---	.13
27	14	---	9.4	6.4	---	.10	8.2	---	.07
28	19	---	37	6.4	---	.12	7.8	---	.46
29	29	430	39	6.6	---	.12	9.6	---	.16
30	21	---	16	6.6	3	.05	9.4	---	.10
31	14	---	5.7	6.2	---	.05	---	---	---
TOTAL	312.7	---	5023.56	214.9	---	23.45	224.5	---	4.77
YEAR	4287.3		11779.67						

07094500 ARKANSAS RIVER AT PARKDALE, CO

LOCATION.--Lat 38°29'14", long 105°22'23", in NE¼NW¼ sec.18, T.18 S., R.71 W., Fremont County, Hydrologic Unit 11020001, on left bank at Parkdale, 100 ft upstream from Bumback Gulch, 300 ft upstream from bridge on U.S. Highway 50, and 0.9 mi upstream from Copper Gulch.

DRAINAGE AREA.--2,548 mi^2.

PERIOD OF RECORD.--October 1945 to September 1955, October 1964 to current year. Monthly discharge only for October 1945 to May 1946, published in WSP 1311.

REVISED RECORDS.--WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 5,720 ft, from topographic map. Prior to Oct. 1, 1964, at site 600 ft downstream at different datum.

REMARKS.--Estimated daily discharges: Feb. 3,4. Records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, diversions for irrigation of about 35,000 acres above station, and return flow from irrigated areas.

AVERAGE DISCHARGE.--31 years (water years 1946-55, 1965-85), 810 ft^3/s; 586,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,310 ft^3/s, June 26, 1983, gage height, 7.76 ft; maximum gage height, 9.13 ft, June 9, 1985; minimum daily discharge, 200 ft^3/s, Jan. 5-7, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,960 ft^3/s at 1600 June 9, gage height, 9.13 ft; minimum daily, 316 ft^3/s, March 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	533	909	437	401	718	688	805	1200	2390	2110	1420	512
2	526	748	433	319	660	665	838	1310	2160	2070	1370	503
3	521	745	398	330	800	641	908	1470	2150	1990	1360	483
4	548	781	430	374	820	621	870	1690	2270	1950	1280	442
5	594	741	402	397	846	580	500	2010	2530	1940	1200	441
6	616	753	404	406	838	356	434	2280	3350	1990	1100	441
7	636	745	418	412	844	333	459	2300	4390	2160	980	433
8	675	679	452	422	868	329	563	2300	5390	2160	917	433
9	710	647	470	428	830	332	598	2420	5800	2040	875	432
10	739	632	472	405	811	335	582	2450	5800	2000	873	428
11	755	640	459	381	749	350	540	2330	5400	1960	953	445
12	763	664	460	356	771	360	545	2120	4640	1840	780	576
13	758	645	447	341	755	336	555	1550	4390	1870	748	572
14	709	637	420	360	745	320	575	1200	4230	1910	739	539
15	735	599	449	378	742	316	597	934	4250	1910	729	513
16	755	579	442	369	763	506	636	838	4280	1880	741	502
17	759	600	430	368	758	745	659	842	4240	1820	678	440
18	798	594	420	405	753	781	673	1010	4130	1850	665	427
19	855	575	411	407	737	799	697	1190	4040	1880	658	446
20	1020	539	407	395	728	799	710	1210	3870	2220	643	455
21	1120	518	390	372	734	808	651	1430	3590	2220	626	506
22	1170	504	379	400	736	790	618	1280	3470	2730	661	480
23	1170	525	378	855	733	764	576	1110	3360	3050	644	461
24	1040	540	377	850	690	774	545	1070	3100	2820	749	479
25	913	549	367	867	691	784	536	1100	3140	2420	832	493
26	844	524	377	884	701	790	679	1390	3100	2170	679	508
27	821	466	389	920	690	773	880	1800	2700	1960	550	493
28	848	467	423	810	690	795	1010	2040	2360	1820	554	472
29	858	500	413	775	---	836	1240	3210	2340	1990	560	512
30	877	444	394	749	---	766	1220	3210	2250	1800	556	566
31	1010	---	388	714	---	790	---	2970	---	1570	518	---
TOTAL	24676	18489	12936	15850	21201	18862	20699	53264	109110	64100	25638	14433
MEAN	796	616	417	511	757	608	690	1718	3637	2068	827	481
MAX	1170	909	472	920	868	836	1240	3210	5800	3050	1420	576
MIN	521	444	367	319	660	316	434	838	2150	1570	518	427
AC-FT	48940	36670	25660	31440	42050	37410	41060	105600	216400	127100	50850	28630

CAL YR 1984 TOTAL 478533 MEAN 1307 MAX 5320 MIN 321 AC-FT 949200
WTR YR 1985 TOTAL 399258 MEAN 1094 MAX 5800 MIN 316 AC-FT 791900

07094900 MIDDLE TAYLOR CREEK NEAR WESTCLIFFE, CO

LOCATION.--Lat 38°06'30", long 105°36'03", in SW¼NE¼ sec.36, T.45 N., R.12 E., Custer County, Hydrologic Unit 11020001, on right bank 300 ft downstream from Rainbow Trail crossing and 7.5 mi west of Westcliffe.

DRAINAGE AREA.--3.2 mi^2.

PERIOD OF RECORD.--August 1974 to July 1978; November 1983 to September 1985, (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 9,960 ft above National Geodetic Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 6 to Apr. 29. Records good except those Nov. 6 to Apr. 29 when gage was closed for winter, which are poor. No regulation or diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49 ft^3/s, July 10,1975, gage height, 1.94 ft; minimum daily, 0.30 ft^3/s, Jan. 8 to Mar. 4, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 30 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 8	2130	*46	*2.15	June 25	0430	31	1.84

Minimum daily discharge, 0.35 ft^3/s, Jan. 3-13, Feb. 3-4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	1.4	.53	.36	.38	.55	.74	3.1	16	12	5.3	2.0
2	1.4	1.4	.52	.36	.36	.55	.74	4.3	18	12	5.9	2.0
3	1.7	1.3	.50	.35	.35	.56	.74	7.9	21	12	5.1	2.0
4	2.5	1.3	.50	.35	.35	.56	.74	13	21	11	4.9	2.1
5	2.0	1.3	.49	.35	.38	.57	.75	16	19	11	4.5	2.2
6	1.8	1.2	.48	.35	.40	.57	.75	17	23	10	4.2	2.0
7	1.7	1.2	.48	.35	.41	.58	.76	16	30	10	3.9	2.0
8	1.6	1.2	.47	.35	.43	.58	.78	19	39	9.6	3.6	2.0
9	1.6	1.2	.46	.35	.44	.58	.80	22	38	9.5	3.2	2.4
10	1.6	1.1	.45	.35	.45	.59	.85	23	34	9.5	3.3	2.0
11	1.5	1.1	.45	.35	.47	.60	.90	19	31	9.0	3.2	2.3
12	1.5	1.1	.44	.35	.48	.60	1.0	15	32	8.5	2.9	2.4
13	1.6	1.0	.44	.35	.50	.61	1.1	12	32	8.2	2.7	2.0
14	1.7	.98	.43	.36	.52	.62	1.3	9.5	30	8.1	2.7	1.9
15	1.6	.94	.42	.38	.53	.63	1.5	8.0	30	7.9	2.6	2.0
16	1.6	.90	.42	.40	.53	.64	2.0	7.9	30	7.1	2.4	2.1
17	1.9	.85	.41	.41	.53	.65	2.5	8.3	29	7.1	2.4	1.9
18	2.1	.82	.40	.42	.53	.66	3.2	9.2	27	6.7	2.3	2.3
19	1.9	.80	.40	.43	.53	.68	3.5	11	24	6.7	2.3	3.3
20	1.8	.77	.40	.45	.53	.69	3.4	10	25	6.7	2.2	3.3
21	1.6	.74	.40	.45	.53	.70	3.2	10	24	6.9	2.2	3.5
22	1.6	.71	.40	.45	.53	.70	2.8	10	23	7.3	2.1	3.1
23	1.6	.68	.40	.45	.54	.70	2.5	9.3	22	6.1	2.1	2.6
24	1.6	.66	.40	.45	.54	.70	2.2	9.0	22	5.5	2.1	2.2
25	1.8	.63	.40	.45	.54	.71	2.1	11	26	5.3	2.0	2.1
26	1.6	.60	.40	.45	.54	.72	2.0	14	21	5.2	2.0	2.1
27	1.4	.58	.39	.45	.55	.72	2.1	19	16	4.8	2.0	2.0
28	1.4	.57	.39	.44	.55	.72	2.3	21	14	4.8	2.1	2.6
29	1.4	.55	.38	.43	---	.72	2.4	22	13	7.2	2.0	2.8
30	1.4	.54	.38	.42	---	.73	2.7	21	12	6.8	2.0	2.5
31	1.4	---	.37	.40	---	.73	---	19	---	5.7	2.0	---
TOTAL	51.3	28.12	13.40	12.26	13.42	19.92	52.35	416.5	742	248.2	92.2	69.7
MEAN	1.65	.94	.43	.40	.48	.64	1.74	13.4	24.7	8.01	2.97	2.32
MAX	2.5	1.4	.53	.45	.55	.73	3.5	23	39	12	5.9	3.5
MIN	1.4	.54	.37	.35	.35	.55	.74	3.1	12	4.8	2.0	1.9
AC-FT	102	56	27	24	27	40	104	826	1470	492	183	138

CAL YR 1984	TOTAL	1363.60	MEAN	3.73	MAX	28	MIN	.37	AC-FT	2700
WTR YR 1985	TOTAL	1759.37	MEAN	4.82	MAX	39	MIN	.35	AC-FT	3490

NOTE.--NO GAGE-HEIGHT RECORD NOV. 6 TO APR. 29.

07095000 GRAPE CREEK NEAR WESTCLIFFE, CO

LOCATION.--Lat 38°11'10", long 105°28'59", in NW¼NW¼ sec.31, T.21 S., R.72 W., Custer County, Hydrologic Unit 11020001, on left bank 0.5 mi upstream from water line of De Weese Reservoir at elevation 7,665 ft, 0.5 mi downstream from Swift Creek, and 3.6 mi northwest of Westcliffe.

DRAINAGE AREA.--320 mi².

PERIOD OF RECORD.--October 1924 to September 1961, October 1962 to September 1984. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1117: Drainage area. WSP 1241: 1950 (M). WSP 1311: 1927 (M).

GAGE.--Water-stage recorder. Elevation of gage is 7,690 ft, from topographic map. Prior to Mar. 17, 1939, at site 30 ft upstream at present datum.

REMARKS.--Estimated daily discharges: Water year 1983, Dec. 2-7, 12-15, 19-21, Dec. 24 to Feb. 13, Feb. 17 to Mar. 8, Mar. 26 to Apr. 11, July 25-29. Water Year 1984, Nov. 19, 20, Nov. 22 to Mar. 20, May 18-20, Aug. 28 to Sept. 6, Sept 18-30. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 250 acres above station.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--58 years (water years 1925-61, 1963-83), 32.3 ft³/s; 23,400 acre-ft/yr: 59 years (water years 1925-61, 1963-84), 32.7 ft³/s; 23,690 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,460 ft³/s, Aug. 2, 1966, gage height, 8.45 ft, from rating curve extended above 320 ft³/s, on basis of slope-area measurement of peak flow; minimum daily, 0.1 ft³/s, June 19-22, 1936.

EXTREMES FOR WATER YEAR 1983.--Maximum discharge, 605 ft³/s at 2300 June 26, gage height, 3.05 ft; minimum daily, 5.0 ft³/s, Feb. 3.

EXTREMES FOR WATER YEAR 1984.--Maximum discharge, 1,140 ft³/s at 1900 May 1, gage height, 3.86 ft; minimum daily, 8.0 ft³/s, Jan. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94	27	19	12	6.9	19	36	60	352	302	75	38
2	74	29	18	13	5.8	20	32	56	243	260	103	32
3	68	28	15	13	5.0	21	32	71	198	211	121	30
4	58	29	17	13	5.8	20	30	45	170	190	173	29
5	52	34	17	14	6.9	20	30	39	168	170	154	25
6	47	31	15	14	5.8	19	30	41	305	163	149	24
7	46	30	10	14	7.4	24	40	38	485	154	134	21
8	45	29	15	14	8.9	29	50	37	338	151	103	19
9	41	31	21	13	10	39	70	41	281	146	82	17
10	41	38	17	13	10	49	110	45	254	130	68	17
11	44	40	16	13	10	74	200	52	269	154	64	17
12	49	30	12	13	12	74	275	51	299	198	75	15
13	47	27	13	14	14	55	117	49	341	235	71	15
14	43	25	13	13	14	50	70	55	311	183	89	14
15	41	21	8.0	13	16	40	84	88	232	142	68	14
16	40	24	16	13	18	31	124	121	216	117	58	13
17	39	26	18	13	19	36	183	78	235	103	50	12
18	37	28	13	13	19	32	185	56	260	99	47	12
19	34	30	14	12	18	34	124	43	290	119	44	12
20	31	27	14	10	18	32	81	144	330	106	40	9.8
21	30	25	14	10	17	32	81	232	344	132	36	9.8
22	30	22	15	12	18	32	79	155	320	154	32	9.8
23	29	25	15	12	18	32	106	75	404	134	34	11
24	28	21	6.0	10	18	32	74	58	394	123	38	11
25	28	21	9.0	10	19	30	96	61	366	103	44	12
26	28	22	12	10	19	30	85	77	541	144	47	12
27	35	22	16	10	19	30	67	91	536	117	68	11
28	31	21	15	12	20	32	52	99	473	103	59	9.8
29	26	21	14	10	---	36	55	125	400	96	50	11
30	29	22	14	10	---	40	58	185	355	84	49	15
31	28	---	13	8.9	---	40	---	308	---	82	43	---
TOTAL	1293	806	444.0	374.9	378.5	1084	2656	2676	9710	4605	2268	498.2
MEAN	41.7	26.9	14.3	12.1	13.5	35.0	88.5	86.3	324	149	73.2	16.6
MAX	94	40	21	14	20	74	275	308	541	302	173	38
MIN	26	21	6.0	8.9	5.0	19	30	37	168	82	32	9.8
AC-FT	2560	1600	881	744	751	2150	5270	5310	19260	9130	4500	988

CAL YR 1982 TOTAL 10566.7 MEAN 28.9 MAX 188 MIN 3.0 AC-FT 20960
WTR YR 1983 TOTAL 26793.6 MEAN 73.4 MAX 541 MIN 5.0 AC-FT 53150

07095000 GRAPE CREEK NEAR WESTCLIFFE, CO--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	12	17	14	14	15	61	383	281	38	29	25
2	14	12	18	13	14	18	56	379	272	37	32	25
3	12	12	17	12	14	19	58	99	232	32	30	20
4	12	12	18	13	14	20	67	67	214	31	22	20
5	12	12	17	14	14	17	126	77	170	22	21	15
6	12	12	16	14	14	18	257	72	134	17	25	15
7	12	12	16	14	14	30	406	59	105	12	39	12
8	12	13	17	14	14	35	563	51	89	12	44	9.8
9	12	18	18	14	14	42	445	55	63	16	34	9.8
10	12	22	19	14	14	47	312	63	47	20	30	8.9
11	12	27	20	14	14	51	201	81	38	69	29	8.9
12	12	32	20	13	14	55	92	101	27	38	27	8.9
13	12	24	18	12	14	59	82	137	25	24	27	8.9
14	11	20	16	12	14	63	64	164	37	19	37	8.9
15	11	16	14	12	14	67	59	206	50	21	32	9.8
16	11	18	15	11	14	71	59	257	67	43	36	11
17	11	18	14	10	14	75	60	260	77	29	30	12
18	12	18	14	8.0	13	79	60	250	72	26	37	11
19	11	18	14	9.0	12	82	59	240	105	27	65	11
20	11	19	14	9.0	12	86	70	230	84	25	51	11
21	11	20	13	10	14	114	71	229	70	20	52	11
22	11	19	13	11	15	123	102	272	58	14	61	12
23	11	20	13	12	14	81	89	320	47	12	58	10
24	11	19	12	13	14	74	65	355	64	12	51	9.0
25	12	18	13	14	14	107	55	369	55	12	51	9.0
26	12	17	14	14	13	114	46	400	51	12	46	9.0
27	12	16	14	13	12	91	35	348	40	16	40	9.0
28	11	16	13	13	13	67	36	290	35	15	30	10
29	11	16	14	14	14	63	42	257	27	12	30	11
30	12	16	13	14	---	63	75	254	22	12	30	11
31	12	---	14	14	---	55	---	249	---	20	25	---
TOTAL	366	524	478	388.0	398	1901	3773	6574	2658	715	1151	362.9
MEAN	11.8	17.5	15.4	12.5	13.7	61.3	126	212	88.6	23.1	37.1	12.1
MAX	16	32	20	14	15	123	563	400	281	69	65	25
MIN	11	12	12	8.0	12	15	35	51	22	12	21	8.9
AC-FT	726	1040	948	770	789	3770	7480	13040	5270	1420	2280	720

CAL YR 1983 TOTAL 25618.6 MEAN 70.2 MAX 541 MIN 5.0 AC-FT 50810
WTR YR 1984 TOTAL 19288.9 MEAN 52.7 MAX 563 MIN 8.0 AC-FT 38260

NOTE.--NO GAGE-HEIGHT RECORD DEC. 18 TO MAR. 20.

07096000 ARKANSAS RIVER AT CANON CITY, CO

LOCATION.--Lat 38°26'02", long 105°15'24", in SE¼SE¼ sec.31, T.18 S., R.72 W., Fremont County, Hydrologic Unit 11020002, on right bank 800 ft upstream from Sand Creek, 0.7 mi downstream from Grape Creek, and 0.7 mi upstream from First Street Bridge in Canon City.

DRAINAGE AREA.--3,117 mi^2.

PERIOD OF RECORD.--January 1888 to September 1984. Monthly discharge only for some periods, published in WSP 1311. Published as "near Canyon" 1900-1906.

REVISED RECORDS.--WSP 1117: Drainage area. WSP 1311: 1897-98.

GAGE.--Water-stage recorder. Datum of gage is 5,342.13 ft above National Geodetic Vertical Datum of 1929. See WSP 1711 or 1731 for history of changes prior to Oct. 1, 1957. Oct. 1, 1957, to Nov. 15, 1962, water-stage recorder at present site at datum 1.49 ft higher.

REMARKS.--Estimated daily discharges: Water Year 1982, Dec. 30 to Jan. 4, Jan 6-19, 21-24, Jan. 30 to Feb. 19. Water year 1983, No estimated daily discharges. Water Year 1984, Dec. 17 to Jan. 2, Jan. 15-25. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 250 acres above station.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--94 years, 715 ft^3/s, 518,000 acre-ft/yr: 95 years, 719 ft^3/s; 520,900 acre-ft/yr: 96 years, 725 ft^3/s; 525,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,000 ft^3/s, Aug. 2, 1921, gage height, 10.7 ft, site and datum then in use, from floodmark, from rating curve extended above 5,000 ft^3/s; minimum daily, 69 ft^3/s, May 13, 1959.

EXTREMES FOR WATER YEAR 1982.--Maximum discharge, 2,900 ft^3/s at 1800 July 1, gage height, 7.94 ft; minimum daily, 183 ft^3/s, Apr. 11, 12.

EXTREMES FOR WATER YEAR 1983.--Maximum discharge, 6,690 ft^3/s at 1000 June 27, gage height, 10.08 ft; minimum daily, 203 ft^3/s, May 8.

EXTREMES FOR WATER YEAR 1984.--Maximum discharge, 6,120 ft^3/s at 1100 May 26, gage height, 9.48 ft; minimum daily, 265 ft^3/s, many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	240	412	255	410	490	533	237	204	1320	2840	1420	843
2	285	387	245	410	500	526	260	204	1350	2780	1240	784
3	255	381	296	300	470	548	250	224	1470	2640	1180	711
4	255	323	318	390	490	540	240	270	1410	2540	1240	647
5	265	312	301	387	400	533	227	438	1040	2180	1230	623
6	270	318	412	400	450	491	218	615	977	1890	1160	639
7	275	301	399	460	490	498	234	695	1270	1720	1290	647
8	255	296	381	450	500	512	201	615	1260	1610	1200	600
9	260	301	369	440	510	505	188	533	1330	1440	1080	570
10	237	296	357	430	520	519	187	457	1470	1380	1030	563
11	224	290	351	420	520	519	183	412	1680	1330	1050	615
12	221	290	363	415	530	512	183	412	1800	1280	1050	809
13	227	280	369	410	540	526	188	498	1970	1370	1050	932
14	240	280	357	360	550	526	188	457	2110	1350	1170	932
15	290	260	357	390	570	540	187	418	2110	1410	1170	914
16	405	255	369	410	560	519	188	357	2030	1420	1110	852
17	451	227	351	450	580	519	197	307	2060	1370	1140	818
18	431	218	329	480	570	505	195	290	2410	1290	1140	852
19	393	214	345	500	560	484	197	275	2610	1160	1190	914
20	381	211	375	498	563	477	206	265	2450	1070	1280	995
21	345	211	387	480	585	477	206	270	2320	1030	1830	1030
22	334	221	418	460	600	484	195	280	2170	1030	1540	968
23	340	227	393	470	608	484	299	351	2240	986	1440	896
24	340	227	357	490	600	444	505	512	2500	923	1430	843
25	369	255	357	498	585	270	533	711	2640	869	1440	818
26	357	237	393	484	578	250	498	735	2740	941	1300	809
27	323	221	418	484	540	255	498	759	2670	986	1120	792
28	323	234	393	470	533	255	505	914	2500	1080	1050	784
29	318	260	387	491	---	250	457	1110	2720	1470	1030	784
30	357	265	405	470	---	245	280	1290	2760	1840	959	792
31	431	---	430	480	---	240	---	1360	---	1710	896	---
TOTAL	9697	8210	11237	13687	14992	13986	8130	16238	59387	46935	37455	23776
MEAN	313	274	362	442	535	451	271	524	1980	1514	1208	793
MAX	451	412	430	500	608	548	533	1360	2760	2840	1830	1030
MIN	221	211	245	300	400	240	183	204	977	869	896	563
AC-FT	19230	16280	22290	27150	29740	27740	16130	32210	117800	93100	74290	47160

CAL YR 1981	TOTAL	147381	MEAN	404	MAX	1570	MIN	167	AC-FT 292300
WTR YR 1982	TOTAL	263730	MEAN	723	MAX	2840	MIN	183	AC-FT 523100

07096000 ARKANSAS RIVER AT CANON CITY, CO--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	995	451	655	615	593	570	451	280	1330	4510	2140	905
2	896	444	647	593	585	570	425	265	1450	4310	2170	826
3	818	438	615	600	570	519	412	255	1450	4170	2100	792
4	775	418	631	600	578	444	412	234	1230	4080	2150	767
5	719	438	639	623	570	464	381	227	1210	3890	2280	759
6	687	438	631	655	570	444	275	221	1400	3770	2540	703
7	655	431	639	663	593	431	260	214	1440	3670	2840	671
8	663	444	639	647	593	431	260	203	1340	3650	2520	639
9	719	451	655	631	600	431	255	211	1480	3680	2150	615
10	719	451	655	593	593	425	260	230	1630	3760	2070	608
11	719	457	655	615	600	431	280	260	1940	3900	1900	593
12	743	451	639	615	608	412	393	296	2560	3870	1830	570
13	719	425	631	615	615	412	438	312	2670	3770	1920	526
14	727	425	631	615	615	405	357	484	2340	3590	1970	444
15	687	418	600	608	615	438	312	505	2010	3490	1860	451
16	639	505	600	608	623	457	307	484	2380	3250	1440	444
17	593	663	639	615	615	451	340	351	2890	3060	1350	470
18	570	679	631	615	608	451	405	290	3450	2950	1260	639
19	555	679	608	608	631	457	464	245	4410	2920	1220	405
20	570	671	600	608	608	457	464	296	5130	2890	1230	387
21	540	663	615	608	585	451	431	405	5420	2920	1190	431
22	512	663	608	608	570	451	431	418	5510	3250	1120	425
23	498	655	608	600	593	457	412	357	5210	3350	959	357
24	498	639	608	593	593	457	405	296	5490	3200	887	329
25	484	631	585	600	593	457	519	312	5860	2930	896	329
26	491	639	555	608	608	444	563	477	6300	2820	896	329
27	498	631	615	600	615	438	457	878	6440	2740	941	318
28	484	631	663	548	585	438	369	1170	5950	2680	950	301
29	444	631	608	563	---	412	296	1090	5600	2520	905	265
30	444	639	585	585	---	387	275	1070	4980	2360	887	275
31	457	---	608	615	---	412	---	1350	---	2240	932	---
TOTAL	19518	16199	19298	18870	16725	13904	11309	13686	100500	104190	49503	15573
MEAN	630	540	623	609	597	449	377	441	3350	3361	1597	519
MAX	995	679	663	663	631	570	563	1350	6440	4510	2840	905
MIN	444	418	555	548	570	387	255	203	1210	2240	887	265
AC-FT	38710	32130	38280	37430	33170	27580	22430	27150	199300	206700	98190	30890

CAL YR 1982 TOTAL 289601 MEAN 793 MAX 2840 MIN 183 AC-FT 574400
WTR YR 1983 TOTAL 399275 MEAN 1094 MAX 6440 MIN 203 AC-FT 792000

07096000 ARKANSAS RIVER AT CANON CITY, CO--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	647	275	444	415	323	340	363	792	5320	4900	2280	1770
2	663	280	457	410	329	334	345	1290	5360	4870	2490	1650
3	647	280	464	412	323	340	329	1250	4980	4470	2150	1520
4	639	270	451	431	323	345	312	1200	4790	4190	2070	1450
5	623	265	451	451	323	307	351	1180	4490	3790	2150	1420
6	608	265	418	444	318	307	444	1170	4020	3250	1850	1310
7	578	265	399	431	318	301	570	1140	3790	2780	2030	1220
8	540	270	438	425	329	312	703	1120	3210	2670	2040	1140
9	505	301	438	418	334	318	784	1110	2790	3080	1900	1120
10	438	312	438	412	318	318	663	1020	2390	3450	1760	1080
11	307	301	431	387	318	323	608	1000	2200	3790	1620	932
12	307	312	431	375	301	307	491	1100	2140	3350	1550	735
13	301	334	425	363	301	301	393	1210	2180	3030	1540	743
14	290	357	393	351	323	318	363	1350	2700	2670	1530	671
15	296	363	393	330	334	351	397	1900	3400	2740	1550	647
16	307	357	393	330	323	381	759	2320	4290	2560	1740	631
17	280	375	380	300	329	412	743	2500	4630	2450	1970	639
18	270	387	360	290	334	425	759	2520	4390	2430	2220	615
19	265	425	360	280	318	412	759	2340	3790	2220	2630	578
20	270	381	360	280	296	387	887	2180	3870	2170	2010	563
21	270	399	350	290	307	405	887	2360	3940	2140	1960	548
22	270	444	320	320	323	470	671	3260	4230	2240	2280	533
23	270	399	340	330	323	464	655	3790	4510	2200	2200	519
24	265	357	350	340	323	418	647	4690	4510	2140	2150	498
25	265	399	350	390	329	431	663	5620	4390	2150	2320	477
26	275	425	380	425	351	425	639	5950	4730	2150	2390	451
27	280	412	390	412	323	425	600	5620	4810	2180	2280	451
28	270	387	370	375	312	399	585	5210	4610	2130	2110	457
29	275	399	350	393	329	351	608	5530	4330	2290	2000	484
30	280	425	380	381	---	387	631	5600	4410	2250	1930	498
31	270	---	410	340	---	393	---	5360	---	2360	1810	---
TOTAL	11771	10421	12314	11531	9335	11407	17609	82682	119200	89090	62510	25350
MEAN	380	347	397	372	322	368	587	2667	3973	2874	2016	845
MAX	663	444	464	451	351	470	887	5950	5360	4900	2630	1770
MIN	265	265	320	280	296	301	312	792	2140	2130	1530	451
AC-FT	23350	20670	24420	22870	18520	22630	34930	164000	236400	176700	124000	50280

CAL YR 1983 TOTAL 378766 MEAN 1038 MAX 6440 MIN 203 AC-FT 751300
WTR YR 1984 TOTAL 463220 MEAN 1266 MAX 5950 MIN 265 AC-FT 918800

07096500 FOURMILE CREEK NEAR CANON CITY, CO

LOCATION.--Lat 38°26'11", long 105°11'27", in NE¼SW¼ sec.35, T.18 S., R.70 W., Fremont County, Hydrologic Unit 11020002, on right bank 1,000 ft downstream from railroad bridge, 0.6 mi upstream from mouth, and 2.8 mi east of courthouse in Canon City.

DRAINAGE AREA.--434 mi^2.

PERIOD OF RECORD.--April to October 1910 (gage heights and discharge measurements only), October 1948 to September 1953, November 1970 to current year. Published as "Oil or Fourmile Creek" in 1910 and as Oil Creek near Canon City, 1948-53.

REVISED RECORDS.--WDR CO-84-1: 1982(M), 1983 (M).

GAGE.--Water-stage recorder. Concrete control since Oct. 1, 1974. Elevation of gage is 5,254 ft,above National Geodetic Verticle Datum of 1929 from topographic map. April to October 1910, nonrecording gage at site 1,200 ft upstream at different datum. October 1948 to September 1953, water-stage recorder at site 0.6 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Jan. 28 to Feb. 6, May 26 to July 22, Aug. 22 to Sept. 23. Records good except those for periods of estimated daily discharges, which are poor. Diversions for irrigation of about 500 acres above station. Water imported to basin from Arkansas River for irrigation of a few small orchards above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--19 years (water years 1949-53, 1972-85), 29.9 ft^3/s; 21,660 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,260 ft^3/s, July 11, 1951, gage height, 9.25 ft, from floodmarks, site and datum then in use, from rating curve extended above 96 ft^3/s, on basis of slope-area measurement of peak flow; no flow Sept. 3-10, 1950, Sept. 23, 1951.

REVISIONS.--The maximum discharge for water year 1984 has been revised to 2,290 ft^3/s, Aug. 22, 1984, gage height, 6.70 ft; from slope-area measurement of peak flow at a higher stage in 1985. Peak discharge for Aug. 21, 1984 has been revised to 1,880 ft^3/s, gage height, 6.11 ft, and for Aug. 25, 1984, to 1,380 ft^3/s, gage height, 5.30 ft. These figures supersede those published in the report for 1984.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 2	1400	306	3.34	July 25	0630	485	3.73
May 6	1630	385	3.55	July 29	0730	375	3.51
May 22	1430	338	3.51	Aug. 3	2030	395	3.55
July 19	unknown	a *3,530	b *8.38				

Minimum daily discharge, 22 ft^3/s, Feb. 1-8.
a-From rating curve extended on the basis of three slope-area measurements of peak flow.
b-From floodmark.

07096500 FOURMILE CREEK NEAR CANON CITY, CO--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	105	39	32	22	27	62	299	215	56	190	64
2	48	106	40	28	22	27	64	301	200	54	197	62
3	49	99	39	23	22	27	68	288	190	52	229	58
4	139	95	36	27	22	28	73	274	175	50	207	55
5	116	94	36	31	22	28	88	267	185	48	186	52
6	109	92	32	33	22	28	98	331	200	46	111	50
7	101	90	31	33	22	28	108	324	195	45	104	50
8	86	82	35	33	22	27	128	253	170	44	99	49
9	77	77	35	33	24	25	117	234	160	43	75	48
10	77	76	35	32	24	25	105	228	180	41	86	47
11	77	75	35	27	25	31	100	227	180	40	106	60
12	77	73	35	26	29	36	101	212	170	60	130	85
13	75	69	35	23	28	36	103	214	155	52	115	75
14	81	69	34	26	28	36	102	217	145	74	111	64
15	87	68	32	26	27	36	101	209	135	65	123	58
16	89	62	32	26	27	36	99	196	125	56	110	54
17	89	58	32	26	27	36	98	188	115	52	139	53
18	90	56	31	27	27	36	96	217	105	250	123	52
19	91	52	31	28	27	36	99	229	98	900	139	51
20	102	49	28	28	27	36	100	229	93	420	138	50
21	108	46	28	28	27	36	93	251	89	350	127	50
22	108	44	26	28	27	37	89	316	85	380	115	50
23	108	44	23	28	27	38	88	317	79	303	105	50
24	107	50	23	28	26	38	83	312	76	256	98	50
25	104	52	23	28	25	38	89	315	72	351	93	50
26	101	53	24	28	25	40	108	325	69	264	87	51
27	101	50	29	28	25	48	108	320	66	245	80	50
28	101	49	32	28	26	55	118	300	63	274	75	50
29	103	47	33	27	---	59	174	285	60	338	70	50
30	105	42	32	26	---	63	244	250	58	226	68	51
31	105	---	32	24	---	63	---	235	---	185	66	---
TOTAL	2861	2024	988	869	704	1140	3104	8163	3908	5620	3702	1639
MEAN	92.3	67.5	31.9	28.0	25.1	36.8	103	263	130	181	119	54.6
MAX	139	106	40	33	29	63	244	331	215	900	229	85
MIN	48	42	23	23	22	25	62	188	58	40	66	47
AC-FT	5670	4010	1960	1720	1400	2260	6160	16190	7750	11150	7340	3250

CAL YR 1984 TOTAL 27856.7 MEAN 76.1 MAX 1110 MIN 7.2 AC-FT 55250
WTR YR 1985 TOTAL 34722 MEAN 95.1 MAX 900 MIN 22 AC-FT 68870

Streamflow data for water year 1985 for the following station will be published in a subsequent report.

ARKANSAS RIVER BASIN

07097000 ARKANSAS RIVER AT PORTLAND, CO

07097000 ARKANSAS RIVER AT PORTLAND, CO
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1977 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1979 to current year.
WATER TEMPERATURE: October 1979 to current year.

INSTRUMENTATION.--Water-quality monitor since November 1982.

REMARKS.--Daily maximum and minimum specific conductance data available in district office. There was no record for the period Oct. 29 to Nov. 2, Mar. 6-16, and Sept. 3-6.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily observed, 1,380 microsiemens Sept. 30, 1981; minimum daily, 111 microsiemens June 22, 1984.
WATER TEMPERATURES: Maximum daily observed, 24.0°C Aug. 21-22, 31, 1985; minimum daily, 0.0°C many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily recorded, 536 microsiemens Jan. 6; minimum daily, 141 microsiemens June 9.
WATER TEMPERATURES: Maximum daily recorded, 24.0°C Aug. 21-22, 31; minimum daily, 0.0°C, many days during the winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)
OCT 29...	12:45	1100	417	8.4	9.0	8.5	9.6	K40	110	180
DEC 05...	10:45	465	482	8.3	0.0	4.0	12.6	K60	140	200
FEB 11...	12:15	804	--	8.0	0.0	--	12.3	K2	K27	140
APR 10...	11:00	1040	418	8.2	10.0	470	10.9	K600	600	180
JUN 10...	11:40	7160	172	8.1	14.5	150	8.2	K500	1900	76
AUG 21...	12:15	570	420	8.5	20.0	6.0	8.5	110	190	180

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
OCT 29...	50	13	19	0.6	2.4	121	77	7.2	0.6	13
DEC 05...	53	17	24	0.8	2.4	120	110	8.6	0.6	13
FEB 11...	38	12	17	0.6	1.7	84	80	5.6	0.4	9.8
APR 10...	48	14	23	0.8	3.5	128	75	9.4	0.6	15
JUN 10...	22	5.1	7.3	0.4	2.2	63	27	2.3	0.3	8.2
AUG 21...	50	14	20	0.7	2.1	120	89	7.3	0.7	13

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)
OCT 29...	246	250	0.33	731	0.15	0.03	0.2	0.07	0.04	0.01
DEC 05...	308	300	0.42	387	0.34	0.04	0.2	0.08	0.03	0.03
FEB 11...	214	210	0.29	465	0.35	0.04	0.6	0.11	0.04	0.04
APR 10...	276	280	0.38	775	0.34	0.06	4.1	2.30	0.12	0.06
JUN 10...	106	110	0.14	2050	0.14	0.06	0.4	--	0.28	0.04
AUG 21...	283	260	0.38	436	0.18	0.05	0.5	0.10	0.03	<0.01

K BASED ON NON-IDEAL COLONY COUNT.

07097000 ARKANSAS RIVER AT PORTLAND, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LITHIUM DISSOLVED (UG/L AS LI)
OCT 29...	30	<1	59	2	3	1	<3	3	40	18
FEB 11...	20	<1	48	<0.5	<1	<1	<1	3	33	13
JUN 10...	110	<1	49	<0.5	3	<1	<3	5	140	7
AUG 21...	30	1	54	<0.5	2	<1	<3	3	26	16

DATE	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)
OCT 29...	<1	24	<0.1	<10	<1	1	<1	440	<6	48
FEB 11...	<1	23	--	<10	6	2	<1	350	<6	48
JUN 10...	14	17	0.2	<10	<1	<1	<1	160	<6	17
AUG 21...	<1	26	<0.1	20	4	<1	<1	500	<6	12

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 29...	1245	1100	72	214	35
DEC 05...	1045	465	47	59	53
FEB 11...	1215	804	132	287	--
APR 10...	1100	1040	2700	7580	89
JUN 10...	1140	7160	1480	28600	45
AUG 21...	1215	570	84	129	36

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25 DEG. C, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	470	---	500	467	309	341	326	373	254	209	285	402
2	474	---	500	483	320	334	321	349	253	210	300	408
3	476	434	509	518	313	342	299	335	249	210	289	---
4	522	426	515	524	291	336	285	312	243	207	306	---
5	477	429	518	535	277	336	295	294	239	205	330	---
6	449	450	519	536	279	---	338	319	219	207	339	---
7	432	443	515	519	281	---	446	287	190	203	362	394
8	408	455	500	501	295	---	529	271	147	202	377	389
9	408	464	473	481	315	---	470	261	141	207	381	392
10	410	472	466	472	300	---	417	252	150	213	375	395
11	417	471	474	480	300	---	419	249	155	216	364	405
12	424	467	465	477	312	---	415	255	174	225	378	413
13	453	470	469	501	323	---	411	289	186	222	387	393
14	501	473	473	475	322	---	408	325	188	208	466	409
15	511	476	476	483	323	---	405	346	182	231	419	434
16	518	498	471	484	318	---	390	374	185	269	400	466
17	523	488	473	477	316	368	375	373	183	274	397	495
18	505	484	472	473	317	343	386	385	183	285	405	497
19	433	481	475	447	309	336	376	355	186	295	409	491
20	384	494	477	429	316	339	382	343	188	338	414	498
21	380	502	479	432	313	339	396	403	189	288	415	498
22	393	501	473	434	313	329	407	385	187	295	412	511
23	397	498	473	373	320	324	413	379	181	304	410	524
24	421	490	473	301	336	324	414	375	187	262	416	520
25	418	483	472	307	352	327	429	363	190	241	442	522
26	422	481	477	311	348	333	417	348	188	234	473	503
27	410	492	471	311	345	327	350	276	202	239	482	495
28	395	515	464	313	344	318	335	262	212	244	448	495
29	---	494	468	316	---	305	370	235	207	243	431	500
30	---	499	470	307	---	297	364	230	210	246	406	496
31	---	---	474	300	---	308	---	241	---	259	398	---
MEAN	442	474	482	434	315	242	386	318	195	242	391	438

WTR YR 1985 MEAN 363 MAX 536 MIN 141

07097000 ARKANSAS RIVER AT PORTLAND, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	14.0	9.5	---	---	3.0	.0	1.5	.0	.0	.0	8.0	3.5
2	16.5	11.0	---	---	2.5	.5	.0	.0	.0	.0	6.5	4.0
3	14.0	12.5	9.5	6.5	2.0	.0	.0	.0	.0	.0	7.5	3.0
4	12.5	11.0	8.5	5.5	2.0	.0	1.5	.0	.0	.0	5.5	1.0
5	13.5	10.0	7.5	4.5	1.5	.0	3.0	.0	.0	.0	6.0	1.0
6	15.5	11.5	7.5	4.0	1.0	.0	3.0	.0	.0	.0	---	---
7	14.5	11.0	8.0	5.0	3.0	.0	2.5	.0	.0	.0	---	---
8	13.5	11.0	7.5	5.0	3.0	.5	2.0	.5	.0	.0	---	---
9	14.0	10.5	7.0	4.0	4.5	1.0	2.0	.5	2.5	.0	---	---
10	14.0	11.0	6.0	3.0	5.0	2.0	2.5	.0	1.0	.0	---	---
11	14.0	10.5	6.5	2.5	5.5	2.5	1.0	.0	2.0	.0	---	---
12	14.0	11.0	8.0	3.5	3.5	2.5	.0	.0	4.0	.0	---	---
13	14.0	10.5	8.0	5.0	2.5	.5	1.0	.0	4.0	.0	---	---
14	11.5	8.0	8.0	4.5	1.5	.0	.5	.0	5.5	1.5	---	---
15	8.0	3.5	5.5	3.0	2.0	.5	.5	.0	6.5	2.0	---	---
16	6.5	2.0	4.0	2.5	3.5	.0	2.5	.0	6.5	2.5	---	---
17	8.0	4.5	5.0	2.0	2.5	.0	3.5	.0	6.5	2.5	10.5	5.5
18	8.5	6.0	5.5	2.5	2.5	.0	4.0	.5	6.0	3.0	10.5	5.5
19	8.0	4.5	5.0	2.0	2.5	.0	3.0	.0	7.0	3.0	8.0	6.5
20	7.5	5.0	5.5	2.0	3.5	.5	1.0	.0	7.0	3.5	9.5	5.0
21	6.0	5.5	5.0	1.5	2.5	.0	1.0	.0	6.5	4.0	10.5	5.0
22	6.0	5.0	4.0	2.5	1.5	.0	.5	.0	7.0	3.0	9.5	5.5
23	6.0	5.0	5.0	1.5	2.5	.0	.5	.0	6.5	3.0	9.0	4.0
24	8.0	4.5	5.5	3.0	.0	.0	1.5	.0	6.5	1.5	10.5	4.5
25	9.0	5.5	5.5	3.0	1.5	.0	2.5	.0	7.0	2.5	11.5	6.0
26	9.5	6.0	3.5	1.5	4.0	.0	2.5	.0	7.0	2.5	11.5	7.0
27	9.0	6.5	3.0	.0	5.5	.5	1.5	.0	6.5	2.0	11.0	6.5
28	9.5	6.0	4.0	.0	5.5	3.0	3.0	.0	7.5	2.5	6.5	3.5
29	---	---	3.5	1.0	5.5	2.5	3.0	.0	---	---	3.5	.5
30	---	---	3.0	.5	5.0	1.5	1.0	.0	---	---	5.5	.0
31	---	---	---	---	3.5	1.0	.0	.0	---	---	8.5	2.0
MONTH	16.5	2.0	9.5	.0	5.5	.0	4.0	.0	7.5	.0	13.0	.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.0	4.0	16.0	10.5	15.5	11.5	17.5	14.5	21.5	19.0	23.0	19.0
2	11.5	6.0	16.5	11.5	16.5	12.5	18.5	14.5	20.5	18.5	22.0	18.5
3	12.5	7.5	17.0	12.0	16.0	14.0	19.0	15.5	21.5	18.0	21.5	17.5
4	11.0	8.0	15.5	13.0	15.5	13.5	19.5	16.0	22.5	17.5	21.5	17.5
5	10.5	5.5	16.0	12.0	17.0	13.0	19.0	16.0	22.5	18.5	22.5	16.5
6	12.0	7.0	15.0	12.5	16.5	14.0	20.5	16.5	22.5	18.0	22.0	16.0
7	12.0	8.0	15.5	11.5	17.0	14.0	20.0	17.0	23.0	17.5	19.5	16.0
8	11.0	8.0	16.0	12.5	17.0	14.0	19.5	17.0	23.0	18.0	20.5	14.5
9	11.0	8.0	14.5	12.5	17.0	14.5	20.0	16.5	23.0	18.0	21.0	15.0
10	14.0	9.0	14.5	11.5	15.0	14.0	20.0	17.0	22.0	17.0	20.5	16.0
11	14.0	9.0	13.5	9.5	14.5	12.5	21.0	17.5	21.5	17.5	17.5	16.0
12	13.5	10.0	12.0	10.0	15.5	13.0	21.0	18.0	22.0	17.0	19.0	14.5
13	14.5	9.0	10.5	9.0	16.5	14.0	21.5	18.0	22.0	16.5	19.5	14.0
14	15.5	9.5	13.5	8.0	16.0	14.0	21.0	18.0	19.5	17.0	21.0	15.5
15	16.5	10.0	16.0	10.0	17.5	14.0	21.0	18.0	22.5	17.0	19.5	16.0
16	16.0	10.5	14.5	11.5	17.0	15.0	20.5	16.5	22.5	16.5	20.0	14.5
17	15.5	11.5	15.5	12.0	16.0	14.0	21.5	18.0	22.5	16.5	20.5	14.5
18	15.5	12.0	16.5	12.0	17.0	15.0	21.5	18.5	21.5	17.5	18.5	15.0
19	12.5	9.0	15.0	12.5	17.5	15.0	20.0	18.0	22.5	16.5	20.0	15.0
20	13.5	8.0	15.5	11.5	17.5	15.5	20.0	16.0	23.5	18.0	16.0	13.5
21	14.0	9.0	13.0	12.0	17.5	15.5	19.5	17.0	24.0	18.0	17.0	11.5
22	11.0	9.0	14.0	11.0	18.5	15.5	20.0	17.0	24.0	18.0	16.5	12.5
23	14.0	7.5	16.0	11.0	18.0	15.5	19.5	17.0	23.5	18.5	16.0	11.0
24	15.0	8.5	17.5	11.5	17.5	15.5	19.5	17.0	22.5	18.0	15.0	10.5
25	11.5	7.5	16.5	13.0	17.5	16.0	19.5	16.5	22.5	17.5	16.0	11.0
26	7.5	6.5	16.5	13.5	17.0	15.0	19.0	15.5	23.0	17.5	16.5	11.0
27	12.0	5.5	17.5	13.0	16.5	13.5	20.5	16.5	22.5	18.0	17.0	11.0
28	12.5	10.0	17.5	13.0	17.5	13.5	19.0	17.5	23.0	17.5	13.0	8.5
29	11.0	9.0	16.0	13.5	17.0	14.5	19.5	16.5	23.5	18.0	8.0	6.5
30	14.5	8.5	15.5	12.5	16.5	14.5	19.5	16.5	23.5	18.0	8.0	6.0
31	---	---	14.0	12.0	---	---	21.0	15.0	24.0	18.0	---	---
MONTH	16.5	4.0	17.5	8.0	18.5	11.5	21.5	14.5	24.0	16.5	23.0	6.0
YEAR	24.0	.0										

07099215 TURKEY CREEK NEAR FOUNTAIN, CO

LOCATION.--Lat 38°36'42", long 104°53'39", in NW¼SE¼ sec.33, T.16 S., R.67 W., El Paso County, Hydrologic Unit 11020002, on Fort Carson Military Reservation, on right bank 100 ft downstream from State Highway 115 bridge, 0.7 m downstream from Turkey Canyon, 0.8 mi upstream from Turkey Creek Ranch, and 9.4 mi southwest of Fountain.

DRAINAGE AREA.--13.0 mi².

PERIOD OF RECORD.--Streamflow records, May 1978 to current year. Water-Quality data available, May 1978 to September 1982.

REVISED RECORDS.--WDR CO-80-1: 1978(M), 1979(M).

GAGE.--Water-stage recorder. Elevation of gage is 6,420 ft above National Geodetic Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 12-28, Nov. 11 to Mar. 13, and Apr. 27 to June 13. Records good except those for periods of estimated discharge and those above 150 ft³/s, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--7 years, 2.44 ft³/s; 1,770 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,020 ft³/s, July 28, 1982, gage height, 4.70 ft, from rating curve extended above 140 ft³/s; no flow many days some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 15 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 4	2000	*477	*3.91	May 22	unknown	72	3.08
Nov. 1	unknown	18	2.52	July 20	1945	18	2.71
Apr. 30	unknown	74	3.11	July 22	1630	334	3.69

No flow, Sept. 7, 9-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.66	17	3.2	1.5	.80	.70	2.6	50	9.4	1.3	1.9	.10
2	.54	17	3.1	1.4	.70	.68	2.6	45	8.8	1.2	1.9	.06
3	.86	17	3.0	1.4	.74	.66	3.3	40	8.4	1.0	1.9	.09
4	89	16	3.0	1.4	.76	.64	4.1	35	7.8	.88	1.5	.04
5	53	15	2.9	1.3	.82	.63	5.2	31	7.4	.89	1.4	.07
6	29	14	2.8	1.3	.84	.62	5.7	35	6.6	.76	1.2	.07
7	23	13	2.7	1.2	.86	.62	4.9	29	6.2	.67	1.1	.00
8	16	11	2.6	1.2	.88	.60	3.6	24	5.6	.60	.93	.01
9	13	9.3	2.6	1.2	.90	.60	3.8	19	5.2	.61	.98	.00
10	11	6.6	2.5	1.2	.90	.60	4.3	15	4.8	.68	1.0	.00
11	9.3	6.4	2.4	1.2	.92	.60	4.6	12	4.4	.58	.94	.00
12	8.8	5.4	2.4	1.1	.92	.60	4.4	15	4.0	.49	.73	5.3
13	8.0	4.9	2.3	1.1	.92	.60	5.4	14	3.8	.67	.57	2.9
14	7.4	4.4	2.2	1.1	.92	.60	7.0	12	3.4	.78	.62	1.3
15	7.8	4.1	2.2	1.1	.92	.72	7.8	11	3.0	.63	.67	.63
16	8.5	3.9	2.6	1.1	.90	.92	8.8	10	2.8	.61	.54	.32
17	8.0	3.8	2.5	1.1	.88	1.1	6.1	12	2.6	.49	.52	.36
18	8.8	3.7	2.4	1.1	.85	1.1	4.9	11	2.5	.53	.50	.33
19	9.0	3.6	2.3	1.1	.82	1.2	5.7	10	2.3	1.9	.45	.33
20	9.0	3.3	2.2	1.0	.80	1.2	5.7	11	2.1	6.8	.43	.32
21	9.0	3.2	2.1	1.0	.80	1.1	5.5	25	2.0	4.2	.35	.54
22	8.5	3.1	2.0	1.0	.78	1.3	5.4	62	2.0	12	.33	.60
23	8.0	3.0	2.0	1.1	.75	1.4	5.7	40	1.9	5.6	.30	.56
24	7.8	3.0	1.9	1.1	.72	1.5	6.5	30	1.9	4.1	.31	.56
25	8.0	3.0	2.0	1.2	.72	1.7	6.1	24	1.8	5.6	.29	.86
26	9.8	3.3	2.1	1.2	.70	1.7	5.4	20	1.9	6.4	.19	.85
27	15	3.6	1.9	1.2	.70	1.8	7.3	17	1.9	7.1	.19	.72
28	16	3.5	1.8	1.1	.70	2.0	15	15	1.6	5.3	.14	.62
29	16	3.4	1.6	1.1	---	2.5	27	13	1.4	2.5	.16	.72
30	16	3.3	1.6	1.1	---	2.8	56	12	1.4	2.1	.12	.72
31	17	---	1.5	.94	---	1.9	---	10	---	1.9	.08	---
TOTAL	451.76	211.8	72.4	36.14	22.92	34.69	240.4	709	118.9	78.87	22.24	18.98
MEAN	14.6	7.06	2.34	1.17	.82	1.12	8.01	22.9	3.96	2.54	.72	.63
MAX	89	17	3.2	1.5	.92	2.8	56	62	9.4	12	1.9	5.3
MIN	.54	3.0	1.5	.94	.70	.60	2.6	10	1.4	.49	.08	.00
AC-FT	896	420	144	72	45	69	477	1410	236	156	44	38

CAL YR 1984	TOTAL	1041.90	MEAN	2.85	MAX	89	MIN	.02	AC-FT 2070
WTR YR 1985	TOTAL	2018.10	MEAN	5.53	MAX	89	MIN	.00	AC-FT 4000

07099220 LITTLE TURKEY CREEK NEAR FOUNTAIN, CO

LOCATION.--Lat 38°37'37", long 104°51'55", in SW¼NW¼ sec.26, T.16 S., R.67 W., El Paso County, Hydrologic Unit 11020003, on Fort Carson Military Reservation, at right upstream end of bridge on military road No. 11, 1.0 mi downstream from State Highway 115, 2.8 mi upstream from mouth, and 9.1 mi southwest of Fountain.

DRAINAGE AREA.--9.59 mi².

PERIOD OF RECORD.--Streamflow records, May 1978 to current year. Water-Quality data available, May to June 1979, August 1981 to September 1982

GAGE.--Water-stage recorder. Elevation of gage is 6,395 ft above National Geodetic Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1-11, Nov. 18 to Feb. 11, May 9-13, May 30 to June 6, July 5-8. Records good except those for periods of estimated daily discharges Oct. 1-11 and Nov. 18 to Feb. 11, which are poor. Several observations of water temperature and specific conductance were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--7 years, 1.67 ft³/s; 1,210 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 226 ft³/s, July 28, 1982; gage height, 4.57 ft; no flow most of time each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 4	unknown	*39	a 1.58	May 22	1800	38	1.47
Oct. 31	2015	18	1.02	July 19	2345	17	1.44
Apr. 30	0700	38	*1.74	July 22	1930	32	*1.74
May 6	0800	26	1.43	July 25	1415	13	1.36
May 12	unknown	27	a 1.45				

a From floodmarks.
No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.42	18	.65	.16	.01	.00	.33	34	8.8	.61	.23	.00
2	.38	17	.58	.15	.00	.00	.78	30	7.8	.57	.58	.00
3	.60	17	.55	.14	.00	.00	1.5	26	6.8	.44	1.1	.00
4	35	17	.50	.14	.00	.00	2.6	23	6.0	.30	2.0	.00
5	25	14	.46	.13	.00	.00	3.0	21	5.3	.23	1.1	.00
6	21	11	.43	.12	.00	.00	3.6	24	4.9	.16	.45	.00
7	18	9.0	.41	.12	.00	.00	4.4	21	4.4	.08	.15	.00
8	16	7.7	.39	.11	.00	.00	5.3	18	3.8	.00	.00	.00
9	13	6.5	.37	.11	.00	.00	5.3	15	3.2	.00	.00	.00
10	12	5.6	.34	.10	.00	.00	5.5	13	2.7	.00	.01	.00
11	10	4.9	.32	.10	.00	.00	6.0	12	2.2	.00	.02	.00
12	8.8	4.7	.31	.10	.13	.00	6.0	16	1.9	.00	.04	.00
13	7.9	4.4	.30	.10	.03	.00	5.7	14	1.6	.00	.25	.00
14	7.3	4.1	.29	.09	.00	.00	5.6	12	1.5	.00	.02	.00
15	7.8	3.9	.28	.08	.00	.01	5.5	11	1.5	.00	.01	.00
16	7.4	3.4	.31	.08	.00	.02	6.2	10	1.4	.00	.00	.00
17	8.1	2.9	.29	.08	.00	.02	7.4	11	1.4	.00	.00	.00
18	8.7	2.5	.28	.08	.00	.04	8.0	9.2	1.5	.00	.00	.00
19	8.8	2.2	.26	.07	.00	.06	7.1	8.4	1.7	.47	.00	.00
20	9.0	2.0	.25	.07	.00	.06	6.6	9.0	1.1	1.1	.00	.00
21	9.0	1.7	.24	.06	.00	.08	7.5	17	1.1	.25	.00	.00
22	8.3	1.5	.23	.06	.00	.10	6.1	36	.98	.74	.00	.00
23	8.0	1.4	.23	.06	.00	.10	5.5	35	.83	.68	.00	.00
24	7.8	1.3	.22	.05	.00	.10	5.4	34	.74	.24	.00	.00
25	7.9	1.2	.21	.05	.00	.10	5.4	31	.68	1.6	.00	.00
26	9.8	1.0	.21	.05	.00	.15	5.3	27	.71	1.5	.00	.00
27	15	.90	.20	.04	.00	.17	5.2	22	.66	.75	.00	.00
28	17	.80	.20	.04	.00	.24	5.5	17	.62	.28	.00	.00
29	17	.75	.19	.04	---	.21	24	14	.61	.44	.00	.00
30	17	.70	.18	.04	---	.23	34	12	.60	.42	.00	.00
31	17	---	.17	.02	---	.23	---	10	---	.20	.00	---
TOTAL	359.00	169.05	9.85	2.64	.17	1.92	200.31	592.6	77.03	11.06	5.96	.00
MEAN	11.6	5.63	.32	.08	.01	.06	6.68	19.1	2.57	.36	.19	.00
MAX	35	18	.65	.16	.13	.24	34	36	8.8	1.6	2.0	.00
MIN	.38	.70	.17	.02	.00	.00	.33	8.4	.60	.00	.00	.00
AC-FT	712	335	20	5.2	.3	3.8	397	1180	153	22	12	.00

CAL YR 1984	TOTAL	629.30	MEAN	1.72	MAX	35	MIN	.00	AC-FT	1250
WTR YR 1985	TOTAL	1429.59	MEAN	3.92	MAX	36	MIN	.00	AC-FT	2840

07099230 TURKEY CREEK ABOVE TELLER RESERVOIR NEAR STONE CITY, CO

LOCATION.--Lat 38°27'37", long 104°49'19", in NW¼NE¼ sec.30, T.18 S., R.66 W., Pueblo County, Hydrologic Unit 11020002, on Fort Carson Military Reservation, on left bank, 0.5 mi west of intersection of military roads 9 and 1, 1.6 mi upstream from Teller Reservoir Dam and 2.4 mi northeast of Stone City.

DRAINAGE AREA.--62.5 mi².

PERIOD OF RECORD.--Streamflow records, May 1978 to current year. Water-quality data available, May 1978 to September 1981.

GAGE.--Water-stage recorder. Elevation of gage is 5,520 ft above National Geodetic Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 26 to Feb. 25. Records good except those above 100 ft³/s, which are fair, and those for period of estimated daily discharge, which are poor. Diversions above gage for irrigation, amount unknown. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--7 years, 5.63 ft³/s; 4,080 acre-ft/year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,640 ft³/s, Aug. 20, 1982, gage height, 11.51 ft, from rating curve extended above 100 ft³/s, on the basis of slope-area measurements at gage heights 8.04 ft, and 11.27 ft; no flow many days.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 20 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 5	0030	428	8.64	May 23	1115	72	9.21
Oct. 20	1245	46	7.98	June 4	1930	25	9.14
Nov. 2	1145	102	8.42	July 20	0330	b *2340	*11.07
Apr. 17	1245	26	8.98	July 22	2115	765	10.20
Apr. 30	1415	79	9.20	July 25	2130	21	9.23
May 6	1400	28	9.01	Aug. 4	0030	20	9.28

b From rating curve extended above 100 ft³/s on basis of slope area measurement at gage height of 11.27 ft.
Minimum daily discharge, 0.97 ft³/s, Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	88	9.1	3.2	2.1	2.5	2.8	44	18	4.8	2.5	1.4
2	5.3	89	9.6	2.2	1.9	2.5	3.5	31	17	5.1	2.4	1.2
3	5.1	91	9.0	2.8	2.0	2.5	3.4	25	18	4.6	3.3	1.1
4	137	83	8.9	3.1	2.2	2.4	4.4	22	19	3.9	8.0	1.2
5	143	67	7.7	3.1	2.3	2.5	4.5	20	21	3.4	4.7	1.2
6	73	52	7.9	2.8	2.4	2.9	4.7	23	22	3.3	4.2	1.3
7	48	38	7.8	2.8	2.6	3.1	4.5	20	21	3.1	3.8	1.3
8	32	24	8.7	3.4	2.8	2.9	5.1	17	15	2.9	2.4	1.2
9	28	21	9.2	3.3	2.8	2.9	5.7	14	16	3.0	2.1	1.0
10	27	19	10	2.7	2.9	3.0	7.1	12	18	2.9	1.8	.97
11	20	17	10	2.2	2.9	3.4	10	11	16	2.7	1.8	1.4
12	16	15	9.5	1.7	2.9	3.2	13	9.6	12	2.7	1.5	2.3
13	14	13	9.0	2.0	2.8	3.0	17	11	10	3.1	1.6	1.5
14	17	13	6.9	2.2	2.8	2.8	16	9.4	10	3.2	2.7	1.4
15	24	12	7.0	2.5	2.7	3.1	19	8.3	12	4.8	1.9	1.3
16	28	12	6.5	2.5	2.7	3.2	22	8.1	12	4.2	1.6	1.3
17	30	12	6.2	2.5	2.6	2.8	24	8.5	11	3.3	1.6	1.2
18	37	11	5.1	2.8	2.6	2.6	23	11	12	4.2	1.5	1.2
19	41	11	5.4	2.6	2.7	2.4	22	11	11	61	1.4	1.1
20	43	11	5.0	2.4	2.7	2.6	19	12	9.7	271	1.3	1.0
21	43	10	4.7	2.6	2.8	2.3	16	24	9.0	22	1.2	1.3
22	41	9.8	4.0	2.6	2.8	2.4	13	46	7.7	52	1.2	1.3
23	41	10	4.1	2.7	2.7	2.6	10	66	6.7	12	1.2	1.3
24	38	11	3.4	3.1	2.7	2.5	7.0	65	6.9	7.4	1.1	1.1
25	34	10	3.8	2.9	2.5	2.6	6.4	56	6.3	8.7	1.3	1.5
26	38	10	3.6	2.9	2.2	2.7	7.4	47	6.7	8.6	1.3	1.2
27	56	9.7	3.5	2.9	2.5	2.9	5.4	41	6.6	6.0	1.4	1.1
28	78	11	4.0	2.9	2.7	2.6	5.4	36	5.9	5.3	1.4	1.1
29	80	11	4.1	2.8	---	2.5	22	32	5.6	4.7	1.4	1.2
30	79	9.5	3.9	2.7	---	2.6	64	25	4.8	3.8	1.3	1.1
31	80	---	3.1	2.4	---	3.4	---	20	---	2.8	1.3	---
TOTAL	1381.4	801.0	200.7	83.3	72.3	85.4	387.3	785.9	366.9	530.5	66.2	37.77
MEAN	44.6	26.7	6.47	2.69	2.58	2.75	12.9	25.4	12.2	17.1	2.14	1.26
MAX	143	91	10	3.4	2.9	3.4	64	66	22	271	8.0	2.3
MIN	5.0	9.5	3.1	1.7	1.9	2.3	2.8	8.1	4.8	2.7	1.1	.97
AC-FT	2740	1590	398	165	143	169	768	1560	728	1050	131	75

CAL YR 1984	TOTAL	2991.20	MEAN	8.17	MAX	143	MIN	.25	AC-FT	5930
WTR YR 1985	TOTAL	4798.67	MEAN	13.1	MAX	271	MIN	.97	AC-FT	9520

07099233 TELLER RESERVOIR NEAR STONE CITY, CO

LOCATION.--Lat 38°26'33", long 104°49'31", in SE¼NW¼ sec.31, T.18 S., R.66W., in Pueblo County, Hydrologic Unit 11020002, at left upstream end of dam on Turkey Creek on Fort Carson Military Reservation, 1.4 mi upstream from Booth Gulch, and 2.0 mi east of Stone City.

DRAINAGE AREA.--71.5 mi².

PERIOD OF RECORD.--September 1978 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,453 ft above National Geodetic Datum of 1929, from topographic map.

REMARKS.--Estimated contents (at 2400): Jan. 25-27, Jan. 30 to Mar. 11, July 7-16, and Aug. 17-20. Records good except for periods of estimated contents, which are fair. Reservoir is formed by an earthfill dam completed in about 1908. Maximum capacity of reservoir is 1,780 acre-ft at an uncontrolled spillway elevation of about 88 ft, 1980 survey. There is no controlled outlet from reservoir, however, considerable leakage occurs. Reservoir is used for recreation and for amphibious training for Fort Carson.

EXTREMES (at 2400) FOR PERIOD OF RECORD.--Maximum contents, 2,210 acre-ft, June 21, 1980, elevation, 90.15 ft, from capacity curve extended above 88 ft; no contents, May 1 to June 5, 1979.

EXTREMES (at 2400) FOR CURRENT YEAR.--Maximum contents, 1,820 acre-ft, May 1, elevation, 88.22 ft; minimum contents, 1,200 acre-ft, Oct. 2, elevation, 84.45 ft.

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1200	1750	1700	1690	1680	1660	1660	1820	1740	1620	1670	1520
2	1200	1750	1700	1680	1680	1670	1670	1820	1740	1620	1670	1510
3	1200	1750	1690	1680	1680	1670	1660	1800	1740	1620	1660	1500
4	1340	1740	1690	1690	1680	1670	1650	1800	1740	1610	1660	1500
5	1530	1740	1690	1690	1680	1670	1650	1790	1740	1610	1650	1490
6	1640	1740	1690	1690	1680	1670	1660	1790	1740	1600	1650	1480
7	1710	1740	1690	1690	1680	1660	1660	1780	1730	1600	1640	1470
8	1740	1740	1690	1680	1680	1660	1670	1780	1730	1600	1630	1460
9	1750	1740	1690	1680	1680	1660	1680	1770	1730	1580	1630	1460
10	1740	1730	1700	1680	1680	1660	1690	1770	1720	1580	1640	1450
11	1740	1730	1700	1680	1680	1660	1700	1770	1720	1580	1630	1460
12	1730	1730	1690	1680	1680	1670	1710	1760	1720	1580	1630	1460
13	1730	1730	1700	1680	1680	1670	1730	1760	1720	1580	1620	1450
14	1740	1720	1690	1680	1680	1670	1740	1760	1720	1560	1620	1450
15	1740	1720	1690	1680	1680	1670	1740	1760	1710	1560	1610	1440
16	1730	1720	1700	1680	1680	1670	1750	1760	1710	1560	1600	1430
17	1730	1720	1690	1680	1680	1670	1750	1760	1700	1560	1600	1420
18	1720	1710	1700	1680	1680	1670	1750	1760	1700	1550	1600	1420
19	1720	1710	1690	1680	1680	1670	1750	1760	1700	1610	1600	1410
20	1730	1710	1690	1680	1680	1670	1760	1760	1690	1740	1600	1410
21	1730	1700	1690	1680	1680	1670	1760	1770	1690	1700	1590	1400
22	1730	1700	1690	1680	1680	1670	1760	1780	1680	1700	1590	1400
23	1730	1700	1690	1670	1680	1670	1760	1790	1680	1700	1580	1390
24	1730	1700	1680	1680	1680	1670	1760	1800	1680	1700	1570	1390
25	1730	1700	1690	1680	1670	1660	1760	1790	1670	1700	1570	1390
26	1730	1700	1690	1680	1670	1660	1760	1780	1660	1680	1560	1380
27	1740	1700	1690	1680	1670	1650	1760	1770	1650	1680	1550	1380
28	1740	1700	1690	1680	1670	1650	1760	1760	1650	1720	1540	1380
29	1750	1700	1690	1680	---	1660	1790	1750	1640	1690	1540	1370
30	1750	1700	1690	1680	---	1660	1810	1750	1630	1680	1550	1370
31	1750	---	1690	1680	---	1660	---	1740	---	1670	1520	---
MAX	1750	1750	1700	1690	1680	1670	1810	1820	1740	1740	1670	1520
MIN	1200	1700	1680	1670	1670	1650	1650	1740	1630	1550	1520	1370

CAL YR 1984 MAX 1750 MIN 798
WTR YR 1985 MAX 1820 MIN 1200

07099350 PUEBLO RESERVOIR NEAR PUEBLO, CO

LOCATION.--Lat 38°16'15", long 104°43'30", in NE¼ sec.36, T.20 S., R.66 W., Pueblo County, Hydrologic Unit 11020002, at dam on Arkansas River 7 mi west of Pueblo.

DRAINAGE AREA.--4,669 mi².

PERIOD OF RECORD.--January 1974 to current year.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929, (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations above National Geodetic Vertical datum of 1929.

REMARKS.--Reservoir is formed by concrete and earthfill dam. Storage began Jan. 9, 1974; dam completed in August 1975. Capacity, 357,700 acre-ft at elevation 4,898.70 ft, crest of spillway. Dead storage, 3,730 acre-ft, below elevation 4,764.00 ft, invert of river outlet. Reservoir is terminal reservoir of the Fryingpan-Arkansas project and is used to provide flood control, municipal and industrial supplies, and to fulfill irrigation requirements in the Arkansas River valley. Figures given are total contents.

COOPERATION.--Records provided by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 295,480 acre-ft, Feb. 12, 1985, elevation, 4,886.94 ft; minimum since appreciable storage was attained, 22,680 acre-ft, Nov. 13, 1974, elevation, 4,790.50 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 295,480 acre-ft, Feb. 12, elevation, 4,886.94 ft; minimum, 239,960 acre-ft, Oct. 21, elevation, 4,875.05 ft.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	4,875.64	242,550	-
Oct. 31	4,875.26	240,880	-1,670
Nov. 30	4,879.60	260,360	+19,480
Dec. 31	4,885.88	290,260	+29,900
CAL YR 1984			+48,020
Jan. 31	4,886.67	294,150	+3,890
Feb. 28	4,886.43	292,960	-1,190
Mar. 31	4,885.40	287,910	-5,050
Apr. 30	4,878.95	257,480	-30,430
May 31	4,880.43	264,280	+6,800
June 30	4,880.50	264,610	+330
July 31	4,880.37	264,010	-600
Aug. 31	4,877.76	252,080	-11,930
Sept. 30	4,876.23	245,260	-6,820
WTR YR 1985			+2,710

07099400 ARKANSAS RIVER ABOVE PUEBLO, CO

LOCATION.--Lat 38°16'17", long 104°43'06", in NE¼NE¼ sec.36, T.20 S., R.66 W., Pueblo County, Hydrologic Unit 11020002, on left bank 450 ft downstream from headgate of West Pueblo ditch, 0.4 mi downstream from Pueblo Dam, and 7 mi west of Pueblo.

DRAINAGE AREA.--4,670 mi^2.

PERIOD OF RECORD.--Streamflow records, October 1965 to current year. Water-quality data available, October 1965 to September 1970. Sediment data available October 1965 to September 1970.

GAGE.--Water-stage recorder. Elevation of gage is 4,740 ft, from topographic map. Prior to Mar. 23, 1967, at site 730 ft upstream at datum 1.23 ft, higher. May 24, 1974, to Feb. 24, 1975, at site 2,000 ft downstream, at different datum.

REMARKS.--No estimated daily discharges. Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, diversions above station for irrigation of about 88,000 acres and return flow from irrigated areas. Flow completely regulated by Pueblo Reservoir (station 07099350) since Jan. 9, 1974.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--8 years (water years 1966-73), 643 ft^3/s; 465,900 acre-ft/yr, prior to completion of Pueblo Dam; 10 years (1975-85), 739 ft^3/s; 535,400 acre-ft/yr, subsequent to completion of Pueblo Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,100 ft^3/s, Aug. 1, 1966, gage height, 9.4 ft, from floodmarks, present site and datum, from rating curve extended above 1,600 ft^3/s, on basis of slope-area measurement of peak flow; minimum daily, 28 ft^3/s, May 11, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,850 ft^3/s at 1500 June 14, gage height, 7.57 ft; minimum daily, 93 ft^3/s, Nov. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	585	1270	107	117	680	685	770	2140	3020	2100	1480	310
2	580	1170	110	162	680	710	800	1640	2480	2030	1350	296
3	570	960	112	296	680	710	1370	1700	2600	1900	1530	296
4	1050	967	112	485	680	710	1750	1780	2960	1810	1670	324
5	1590	1000	107	580	680	710	1510	1960	3150	1780	1350	338
6	1510	1060	107	575	680	575	1590	2270	2940	1760	1120	374
7	932	1050	107	560	680	535	1680	2860	3670	1830	872	420
8	1030	960	107	560	728	535	1710	2620	5200	1920	800	390
9	1120	850	105	515	758	580	1740	2400	5390	1970	806	360
10	1060	818	107	505	758	685	1970	2420	5340	1940	764	360
11	925	842	107	500	836	690	1800	2500	5380	1850	939	630
12	854	878	107	495	939	675	1560	2370	5470	1850	939	590
13	800	925	107	495	1020	600	2210	2100	5530	1720	1020	525
14	746	796	107	495	1090	580	2080	1970	5640	1600	1010	525
15	695	94	107	495	1010	580	1740	1820	5430	1590	1020	570
16	800	93	107	495	918	580	1200	1260	4170	1520	890	655
17	1270	94	107	490	918	655	1200	904	4200	1540	722	716
18	1470	96	107	490	918	746	1380	1060	4250	1540	625	716
19	1540	96	107	490	918	752	1550	1660	4030	1750	716	716
20	1780	96	107	485	967	794	1550	1990	3730	2590	872	665
21	1480	97	107	485	988	854	1340	2090	3400	3540	953	530
22	1350	99	107	485	988	904	1070	2450	3110	3770	960	452
23	1260	99	107	695	988	918	872	2160	3160	3130	967	334
24	1090	102	110	794	981	897	860	1940	3130	3810	995	440
25	1020	101	110	854	884	860	818	2040	2970	2770	960	378
26	1040	104	115	890	740	860	842	2160	2790	2480	918	346
27	1120	104	115	890	685	806	866	2400	2720	2120	925	406
28	1170	104	115	848	655	770	866	2820	2360	1940	836	440
29	1230	104	117	716	---	770	1000	3200	2020	2050	770	440
30	1270	105	117	685	---	770	1970	3520	2060	2380	390	500
31	1270	---	117	685	---	770	---	3440	---	1850	346	---
TOTAL	34207	15144	3388	17312	23447	22266	41664	67644	112300	66430	29515	14042
MEAN	1103	505	109	558	837	718	1389	2182	3743	2143	952	468
MAX	1780	1270	117	890	1090	918	2210	3520	5640	3810	1670	716
MIN	570	93	105	117	655	535	770	904	2020	1520	346	296
AC-FT	67850	30040	6720	34340	46510	44160	82640	134200	222700	131800	58540	27850

CAL YR 1984 TOTAL 475523 MEAN 1299 MAX 5220 MIN 81 AC-FT 943200
WTR YR 1985 TOTAL 447359 MEAN 1226 MAX 5640 MIN 93 AC-FT 887300

07103700 FOUNTAIN CREEK NEAR COLORADO SPRINGS, CO

LOCATION.--Lat 38°51'17", long 104°52'39", in SE¼SW¼ sec.3, T.14 S., R.67 W., El Paso County, Hydrologic Unit 11020003, on left bank 200 ft upstream from diversion to city of Colorado Springs, 0.5 mi east of bridge on U.S. Highway 24 near west city limits of Colorado Springs, and 1.0 mi downstream from Sutherland Creek.

DRAINAGE AREA.--103 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1958 to current year.

GAGE.--Water-stage recorder and Parshall flume with overflow weirs. Elevation of gage is 6,110 ft above National Geodetic Verticle Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 1-2, Feb. 1-11, 18-21. Records good except those for periods of estimated daily discharges, which are fair. Natural flow of stream affected by storage reservoirs, power developments, diversions for irrigation and municipal use, and at times, transbasin diversion from Beaver Creek drainage and transmountain diversions from Colorado River basin.

AVERAGE DISCHARGE.--27 years, 14.7 ft^3/s; 10,650 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,630 ft^3/s, Aug. 4, 1964, gage height, 5.27 ft, from rating curve extended above 190 ft^3/s, on basis of slope-area measurements at gage heights 3.87, 4.52, and 5.27 ft; minimum daily, 2.0 ft^3/s, Jan. 24, 1969.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 229 ft^3/s at 2030 Apr. 30, gage height, 3.52 ft; minimum daily, 9.0 ft^3/s, Feb. 2-3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	47	21	16	10	13	16	152	77	24	38	19
2	19	48	21	11	9.0	14	20	112	80	20	41	19
3	27	49	19	10	9.0	14	23	103	77	20	33	19
4	137	49	21	12	11	14	23	106	81	18	33	19
5	85	51	16	16	11	15	19	106	75	19	31	18
6	62	47	15	17	11	14	18	120	75	17	29	18
7	60	43	19	17	12	13	18	117	76	16	28	18
8	52	42	22	24	12	13	17	132	79	16	26	18
9	48	40	21	23	14	13	19	138	83	17	28	18
10	44	38	20	21	13	14	25	135	80	17	38	18
11	39	37	20	20	14	14	26	128	73	19	36	48
12	38	36	21	18	15	14	29	127	73	19	23	25
13	34	34	21	22	14	13	25	123	69	18	22	20
14	37	34	19	24	14	13	27	102	69	23	23	20
15	32	32	23	28	14	14	30	94	69	22	25	19
16	32	31	22	24	19	15	35	95	70	21	24	20
17	51	30	20	22	20	15	38	109	68	21	20	20
18	50	30	18	20	19	17	35	104	70	27	20	21
19	43	30	17	20	17	18	36	109	66	38	20	21
20	41	29	17	18	16	21	32	78	61	44	19	23
21	39	29	15	16	14	18	34	89	60	38	19	23
22	34	30	14	17	13	18	43	92	47	33	20	22
23	32	29	16	19	13	17	45	81	40	33	19	23
24	33	28	16	22	13	18	35	81	41	32	20	23
25	33	28	16	22	13	20	37	93	38	38	19	23
26	34	27	16	17	13	20	34	82	38	35	19	22
27	38	24	20	18	14	14	33	78	35	32	19	22
28	42	23	21	17	13	13	41	81	32	40	20	21
29	43	22	19	17	---	12	62	84	25	49	19	22
30	43	21	18	14	---	16	128	86	29	39	19	21
31	45	---	18	12	---	15	---	77	---	34	19	---
TOTAL	1365	1038	582	574	380.0	472	1003	3214	1856	839	769	643
MEAN	44.0	34.6	18.8	18.5	13.6	15.2	33.4	104	61.9	27.1	24.8	21.4
MAX	137	51	23	28	20	21	128	152	83	49	41	48
MIN	18	21	14	10	9.0	12	16	77	25	16	19	18
AC-FT	2710	2060	1150	1140	754	936	1990	6370	3680	1660	1530	1280

CAL YR 1984 TOTAL 8766.7 MEAN 24.0 MAX 137 MIN 6.0 AC-FT 17390
WTR YR 1985 TOTAL 12735.0 MEAN 34.9 MAX 152 MIN 9.0 AC-FT 25260

07103700 FOUNTAIN CREEK NEAR COLORADO SPRINGS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	ALKA-LINITY LAB (MG/L AS CACO3)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)
OCT										
22...	14:10	32	200	--	4.0	--	--	--	--	--
31...	09:30	45	230	--	5.0	10.8	--	534	68	<0.01
NOV										
20...	12:45	27	260	--	3.5	--	--	--	--	--
30...	11:20	20	304	7.7	1.5	11.9	--	26	92	0.02
DEC										
18...	11:15	19	300	--	1.0	--	--	--	--	--
20...	13:35	16	320	7.8	4.5	11.2	--	9	104	0.04
JAN										
14...	11:25	21	260	--	0.5	--	--	--	--	--
22...	13:50	19	288	7.8	0.5	12.0	--	7	90	0.03
FEB										
12...	14:35	15	490	--	3.0	--	--	--	--	--
21...	13:35	13	310	--	5.0	11.0	0.3	13	103	0.20
MAR										
12...	14:15	13	330	--	3.5	--	--	--	--	--
21...	11:15	16	285	7.8	5.0	12.6	1.2	64	88	0.06
APR										
10..	11:25	27	260	--	8.0	--	--	--	--	--
25...	11:50	35	240	7.7	5.0	11.5	1.1	53	106	0.04
30...	02:15	113	190	--	6.0	--	--	--	--	--
MAY										
07...	12:25	110	145	--	8.5	--	--	--	--	--
29...	11:35	84	163	7.8	10.0	13.9	0.8	94	40	0.06
JUN										
05...	14:00	72	150	--	11.5	--	--	--	--	--
27...	12:15	37	205	7.9	11.0	11.5	0.7	22	59	0.03
JUL										
08...	12:25	16	270	--	15.5	--	--	--	--	--
25...	11:40	30	219	8.0	14.0	10.0	0.7	57	67	0.04
AUG										
01...	11:30	38	160	--	14.0	--	--	--	--	--
22...	11:35	22	275	8.1	14.0	10.6	1.0	52	87	0.05
27...	14:45	20	262	--	16.0	--	--	--	--	--
SEP										
19...	13:45	23	236	7.9	13.5	10.4	0.9	49	97	0.03

DATE	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SULFATE DIS-SOLVED (MG/L AS SO4)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
OCT									
31...	0.3	0.70	9.2	17	<1	<10	14	--	1600
NOV									
30...	0.4	1.00	12	20	<1	<10	5	--	770
DEC									
20...	<0.2	1.10	13	19	<1	<10	9	--	430
JAN									
22...	0.5	0.90	12	17	<1	<10	3	--	510
FEB									
21...	0.7	1.10	12	22	<1	<10	3	--	510
MAR									
21...	0.5	1.00	11	18	<1	<10	4	--	2200
APR									
25...	1.1	0.70	9.2	20	<1	<10	2	--	1600
MAY									
29...	0.5	0.40	4.4	13	<1	<10	9	3500	3500
JUN									
27...	0.5	0.60	6.7	14	2	<10	3	950	1000
JUL									
25...	0.4	0.60	7.4	15	1	<10	4	2500	2600
AUG									
22...	0.6	0.80	9.9	17	<1	<10	2	1700	1800
SEP									
19...	0.4	0.60	8.3	17	<1	<10	4	2200	2200

07103700 FOUNTAIN CREEK NEAR COLORADO SPRINGS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT									
31...	100	6	--	100	40	20	1400	260	620
NOV									
30...	50	5	--	130	70	20	K25	K22	K140
DEC									
20...	60	2	--	90	80	<10	K72	K20	K24
JAN									
22...	40	3	--	80	60	<10	>800	>300	380
FEB									
21...	40	3	--	90	70	20	140	K2	44
MAR									
21...	30	8	--	200	80	20	K160	K64	56
APR									
25...	70	8	--	100	40	30	260	90	300
MAY									
29...	40	7	150	170	20	20	730	84	190
JUN									
27...	50	6	50	90	40	30	470	140	320
JUL									
25...	60	6	110	140	30	30	>800	>230	K1700
AUG									
22...	60	3	120	150	30	30	K2800	K900	K710
SEP									
19...	50	18	120	150	30	30	K1500	K650	K1300

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM
DEC							
20...	13:35	16	5	0.22	59	--	--
JAN							
15...	13:15	28	41	3.1	47	--	--
22...	13:50	19	10	0.5	71	--	--
FEB							
21...	13:35	13	10	0.35	--	--	--
MAR							
21...	11:15	16	117	5.1	80	--	--
31...	15:40	23	199	12	74	--	--
APR							
01...	14:55	21	418	24	93	--	--
04...	11:45	22	42	2.5	94	--	--
16...	13:45	36	735	71	49	--	--
18...	13:20	35	93	8.8	--	25	26
25...	11:50	35	247	23	0	--	--
30...	01:20	116	5120	1600	75	--	--
30...	02:10	114	4900	1510	--	31	40
MAY							
02...	14:00	108	1020	297	43	--	--
07...	12:30	110	437	130	38	--	--
15...	15:25	93	118	30	67	--	--
21...	10:40	112	3030	916	70	--	--
29...	11:35	84	191	43	39	--	--
JUL							
20...	22:00	46	391	49	50	--	--
25...	11:40	30	153	12	50	--	--
25...	17:20	61	3700	607	85	--	--
25...	17:35	56	3280	496	85	--	--
29...	15:45	49	332	44	59	--	--
AUG							
12...	14:10	25	51	3.5	83	--	--
22...	11:35	22	60	3.5	69	--	--
SEP							
19...	13:45	23	104	6.5	39	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM
APR						
04...	--	--	100	100	100	--
18...	41	73	85	94	99	99
30...	60	79	89	96	100	100

K BASED ON NON-IDEAL COLONY COUNT.

07103747 MONUMENT CREEK AT PALMER LAKE, CO

LOCATION.--Lat 39°06'07", long 104°53'27", in SE¼SE¼ sec.9, T.11 S., R.67 W., El Paso County, Hydrologic Unit 11020003, on right bank 0.9 mi upstream from Monument Lake, 1.5 mi downstream from North Monument Creek, and 1.9 mi southeast of town of Palmer Lake.

DRAINAGE AREA.--25.9 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.-- February 1977 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,950 ft above National Geodetic Datum of 1929, from topographic map. Record not equivalent to former downstream site.

REMARKS.--Estimated daily discharges: Nov. 27-28, Dec. 5-6, 13-19, 20-24, Jan. 1-2, 9-26, Jan. 29 to Feb.7, Feb. 9-14, 23-24, 26-28, Mar. 3-5. Records good except those for periods of estimated daily discharge, which are poor. Storage and diversions above station for municipal supply of Palmer Lake.

AVERAGE DISCHARGE.--8 years (water years 1978-85), 8.19 ft^3/s; 5,930 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 216 ft^3/s, Aug. 2, 1981, from rating curve extended above 130 ft^3/s, gage height, 2.07 ft, from floodmark; minimum daily, 0.10 ft^3/s, many days in 1978-79.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 204 ft^3/s at 1430 Apr. 30, gage height, 2.34 ft; minimum daily, 1.4 ft^3/s, Feb. 2-5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	17	6.5	4.4	1.5	4.0	8.2	149	22	4.8	9.7	1.8
2	5.5	17	7.6	4.0	1.4	4.0	10	126	21	4.6	9.9	1.9
3	5.8	18	6.6	4.3	1.4	4.5	14	99	20	4.3	8.5	1.9
4	18	17	6.0	4.2	1.4	4.1	16	80	21	4.2	7.8	2.0
5	24	15	5.4	4.2	1.4	4.3	16	71	19	4.1	7.3	2.2
6	20	15	5.3	4.1	1.5	4.5	17	63	18	3.8	6.7	2.0
7	14	14	5.2	4.0	1.5	4.6	19	55	16	3.1	6.0	1.8
8	13	13	4.9	4.0	1.5	4.4	20	51	15	3.1	5.5	1.7
9	12	12	4.4	3.6	1.6	4.6	20	47	16	3.4	5.4	1.7
10	11	12	3.9	3.6	1.6	5.2	21	43	17	3.0	5.6	1.8
11	10	13	3.9	4.0	1.5	5.5	23	39	15	2.6	5.0	4.1
12	9.9	12	3.7	3.5	1.7	5.7	25	36	14	2.7	4.5	4.3
13	9.8	11	3.7	3.5	1.8	6.4	25	37	13	3.2	4.2	3.1
14	9.8	11	3.7	3.7	1.9	5.9	26	37	12	3.7	4.4	2.7
15	10	10	3.5	3.7	2.1	6.0	26	38	11	3.5	4.4	2.6
16	14	9.8	3.5	3.7	2.4	5.9	27	36	10	5.0	3.6	2.5
17	13	10	3.5	3.5	2.6	5.8	29	37	10	4.4	3.5	2.4
18	14	8.8	3.7	3.7	2.8	6.2	29	40	9.9	4.2	3.4	2.2
19	13	8.5	3.8	3.7	2.9	6.3	28	38	9.3	4.6	3.4	2.3
20	13	8.4	4.1	3.3	3.2	6.5	27	39	8.8	9.9	3.1	2.2
21	12	8.3	4.2	3.0	3.2	6.7	27	40	7.7	13	3.0	2.5
22	11	8.7	4.4	2.8	3.3	6.9	26	41	7.5	9.5	2.9	2.8
23	11	11	4.4	2.8	3.4	6.6	26	38	7.1	11	2.7	3.0
24	11	8.6	4.5	2.8	3.5	6.8	28	37	6.5	11	2.5	2.9
25	11	8.3	4.5	2.9	3.7	8.0	28	37	6.0	9.8	2.4	2.9
26	12	7.7	4.4	2.9	4.0	9.4	27	36	6.8	8.9	2.4	2.8
27	13	7.2	4.7	2.9	3.8	8.6	26	33	6.5	8.9	2.3	2.7
28	14	7.2	4.8	2.9	3.9	8.4	29	29	5.7	8.1	2.5	2.6
29	15	7.3	4.6	2.6	---	7.6	36	27	5.0	12	2.4	3.0
30	15	6.6	4.5	2.6	---	7.3	152	25	4.9	13	2.0	3.0
31	15	---	4.4	2.0	---	8.0	---	24	---	11	1.9	---
TOTAL	384.4	333.4	142.3	106.9	66.5	188.7	831.2	1528	361.7	198.4	138.9	75.4
MEAN	12.4	11.1	4.59	3.45	2.37	6.09	27.7	49.3	12.1	6.40	4.48	2.51
MAX	24	18	7.6	4.4	4.0	9.4	152	149	22	13	9.9	4.3
MIN	4.6	6.6	3.5	2.0	1.4	4.0	8.2	24	4.9	2.6	1.9	1.7
AC-FT	762	661	282	212	132	374	1650	3030	717	394	276	150

CAL YR 1984 TOTAL 5748.8 MEAN 15.7 MAX 143 MIN 2.5 AC-FT 11400
WTR YR 1985 TOTAL 4355.8 MEAN 11.9 MAX 152 MIN 1.4 AC-FT 8640

07103747 MONUMENT CREEK AT PALMER LAKE, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1977 to September 1980; January 1984 to current year.

WATER QUALITY DATA. WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	ALKA-LINITY LAB (MG/L AS CACO3)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)
OCT										
05...	11:20	26	120	--	10.0	--	--	--	--	--
23...	11:10	12	130	--	3.5	--	--	--	--	--
30...	10:50	16	133	7.2	6.5	10.8	--	62	45	<0.01
NOV										
19...	12:25	7.7	170	--	6.0	--	--	--	--	--
29...	09:50	7.3	167	7.6	2.0	12.2	--	9	54	0.04
DEC										
01...	14:00	4.6	160	--	3.0	--	--	--	--	--
17...	15:15	3.5	170	--	2.0	--	--	--	--	--
20...	09:05	5.2	160	8.2	1.0	13.2	--	7	61	0.03
JAN										
11...	14:40	4.0	160	--	1.0	--	--	--	--	--
22...	09:30	14	206	7.8	0.5	12.2	--	29	70	0.05
FEB										
13...	13:25	1.8	240	--	4.0	--	--	--	--	--
21...	08:55	2.7	215	--	2.5	12.2	1.1	27	72	0.03
MAR										
11...	11:45	5.5	150	--	6.0	--	--	--	--	--
20...	10:10	6.6	170	--	5.5	10.8	2.1	32	54	0.04
APR										
08...	13:55	19	130	--	6.0	--	--	--	--	--
24...	10:15	27	96	7.6	7.5	12.8	0.7	36	27	0.05
30...	07:15	157	70	--	4.0	--	--	--	--	--
MAY										
28...	10:40	33	--	7.9	11.5	11.3	1.1	10	30	0.05
JUN										
04...	15:10	21	110	--	13.0	--	--	--	--	--
26...	10:15	6.8	163	7.9	14.0	--	0.2	1	53	0.03
JUL										
01...	12:25	4.7	165	--	21.0	--	--	--	--	--
31...	15:00	10	100	--	23.0	--	--	--	--	--
AUG										
21...	10:40	3.1	203	8.1	19.0	6.1	0.2	<1	72	0.05
26...	14:00	2.2	225	--	22.5	--	--	--	--	--
SEP										
19...	08:30	2.4	223	7.9	12.0	7.2	0.5	4	80	0.02

DATE	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SULFATE DIS-SOLVED (MG/L AS SO4)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
OCT									
30...	0.6	0.10	2.1	10	1	<10	5	--	4100
NOV									
29...	0.5	0.20	3.0	11	<1	<10	11	--	520
DEC									
20...	0.3	0.30	3.3	14	<1	<10	8	--	390
JAN									
22...	0.3	0.30	3.9	14	<1	<10	3	--	1600
FEB									
21...	0.3	0.20	4.9	16	<1	<10	3	--	1200
MAR									
20...	0.3	0.10	3.6	13	<1	<10	2	--	1500
APR									
24...	0.4	<0.10	1.4	12	<1	<10	1	--	1700
MAY									
28...	0.3	<0.10	1.4	10	<1	<10	8	840	930
JUN									
26...	0.2	0.10	3.2	12	1	<10	2	290	360
AUG									
21...	0.3	<0.10	3.6	12	1	<10	2	320	500
SEP									
19...	0.2	<0.10	4.4	12	<1	<10	3	480	610

07103747 MONUMENT CREEK AT PALMER LAKE, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, SUS- PENDED RECOV. (UG/L AS MN)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT									
30...	100	3	--	230	130	20	--	--	--
NOV									
29...	90	2	--	70	30	20	--	--	--
DEC									
20...	80	1	--	40	30	<10	--	--	--
JAN									
22...	110	3	--	70	40	<10	>160	>120	K250
FEB									
21...	40	7	--	60	50	<10	60	K2	80
MAR									
20...	100	5	--	80	30	20	80	<2	94
APR									
24...	120	8	--	50	20	20	150	<2	K8
MAY									
28...	90	2	20	40	20	<10	360	K1	100
JUN									
26...	70	3	0	40	40	30	K720	K10	360
AUG									
21...	180	<1	20	90	70	30	29	29	320
SEP									
19...	130	35	10	130	120	20	140	65	170

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DEC					
20...	09:05	5.2	21	0.29	--
JAN					
22...	09:30	14	77	2.9	--
FEB					
21...	08:55	2.7	24	0.17	--
MAR					
20...	10:10	6.6	69	1.2	59
APR					
02...	14:15	9.7	328	8.6	58
24...	10:15	27	42	3.1	52
30...	06:40	157	3610	1530	40
MAY					
03...	13:25	98	479	127	35
21...	17:35	47	94	12	48
28...	10:40	33	30	2.7	45
JUN					
26...	10:15	6.8	11	0.2	--
JUL					
24...	09:40	11	30	0.89	38
AUG					
21...	10:40	3.1	1	0.01	--
SEP					
19...	08:30	2.4	3	0.02	--

K BASED ON NON-IDEAL COLONY COUNT.

07103780 MONUMENT CREEK ABOVE NORTH GATE BOULEVARD AT U.S. AIR FORCE ACADEMY, CO

LOCATION.--Lat 39°01'52", long 104°50'52", in SW¼SW¼ sec.1, T.12 S., R.67 W., El Paso County, Hydrologic Unit 11020003, on right bank, at U.S. Air Force Academy, 50 ft upstream from Denver and Rio Grande Western Railroad bridge, 0.8 mi upstream from North Gate Boulevard, and 1.5 mi downstream from Beaver Creek.

DRAINAGE AREA.--81.7 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April to September 1985.

GAGE.--Water-stage recorder. Elevation of gage is 6,640 ft above National Geodetic Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Apr. 19-29, May 7-9, Sept. 1-7. Records good except for periods of estimated daily discharges, which are poor. Storage and diversions above station for municipal supply of Monument.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 372 ft³/s at 0830 Apr. 30. gage height, 6.05 ft; minimum daily, 4.7 ft³/s, Aug. 26

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	301	51	11	24	7.0
2							---	250	44	11	28	6.7
3							---	200	47	10	28	7.0
4							---	182	45	9.0	24	7.0
5							---	168	37	8.5	17	7.2
6							---	140	45	8.5	17	7.0
7							---	126	45	7.5	16	6.8
8							---	102	45	8.0	14	6.7
9							---	95	44	9.4	14	6.7
10							---	87	45	8.7	15	7.1
11							---	80	42	7.2	17	29
12							---	76	41	5.8	14	75
13							---	86	42	4.9	8.7	20
14							---	77	35	9.2	10	24
15							---	78	28	5.6	9.7	14
16							---	53	28	9.0	9.0	9.3
17							---	66	27	7.0	8.6	7.5
18							---	77	27	7.2	7.9	5.2
19							62	70	29	11	8.8	5.2
20							60	70	32	68	11	5.2
21							58	93	26	77	11	6.7
22							56	93	24	57	14	6.7
23							58	76	21	44	14	6.0
24							56	75	19	33	12	7.0
25							58	82	16	32	8.6	13
26							58	76	17	28	4.7	14
27							56	78	17	20	4.9	16
28							60	76	18	24	9.8	19
29							140	76	17	33	8.6	15
30							345	70	12	30	7.2	15
31							---	64	---	26	6.7	---
TOTAL							---	3243	966	630.5	403.2	382.0
MEAN							---	105	32.2	20.3	13.0	12.7
MAX							---	301	51	77	28	75
MIN							---	53	12	4.9	4.7	5.2

07103780 MONUMENT CREEK ABOVE NORTH GATE BOULEVARD AT U.S. AIR FORCE ACADEMY, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1984 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	ALKA-LINITY LAB (MG/L AS CACO3)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)
OCT										
30...	12:30	45	196	7.1	8.0	10.2	--	65	56	0.22
NOV										
30...	08:45	13	233	7.5	0.5	10.8	--	5	56	0.44
DEC										
20...	10:00	22	--	8.4	0.5	12.2	--	10	59	0.52
JAN										
22...	10:30	11	246	7.4	0.5	11.1	--	5	67	0.79
FEB										
21...	10:10	13	240	--	2.5	11.1	2.7	28	59	0.91
MAR										
20...	12:25	11	--	--	10.5	9.4	2.3	21	56	0.73
APR										
19...	15:10	62	120	--	7.0	--	--	--	--	--
24...	12:40	56	133	7.7	12.5	10.4	--	74	35	0.15
30...	09:40	369	140	--	6.0	--	--	--	--	--
MAY										
06...	12:00	147	120	--	10.0	--	--	--	--	--
09...	11:45	95	130	--	12.0	--	--	--	--	--
28...	13:00	74	134	7.9	16.5	10.2	1.9	83	36	0.14
JUN										
05...	10:55	32	150	--	14.0	--	--	--	--	--
26...	12:45	17	199	7.8	17.0	--	2.3	18	53	0.31
JUL										
01...	14:45	11	160	--	23.5	--	--	--	--	--
24...	12:00	32	208	7.9	19.0	7.6	3.4	121	60	0.40
31...	13:10	28	175	--	23.0	--	--	--	--	--
AUG										
21...	12:50	9.6	217	9.3	24.0	8.4	2.0	7	67	0.04
27...	10:25	5.3	247	--	16.5	--	--	--	--	--
SEP										
19...	09:45	5.2	262	7.6	12.5	9.5	1.4	37	72	0.09

DATE	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SULFATE DIS-SOLVED (MG/L AS SO4)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
OCT									
30...	0.8	0.20	8.3	18	<1	<10	4	--	2100
NOV									
30...	1.5	0.30	8.4	23	<1	<10	5	--	780
DEC									
20...	0.9	0.40	8.7	22	<1	<10	8	--	570
JAN									
22...	1.2	0.70	9.1	23	<1	<10	4	--	370
FEB									
21...	1.5	0.50	9.7	25	<1	<10	4	--	1100
MAR									
20...	1.3	0.50	9.3	23	<1	<10	3	--	530
APR									
24...	1.3	0.10	3.5	13	<1	<10	1	--	2100
MAY									
28...	0.6	0.10	3.3	11	<1	<10	7	2200	2200
JUN									
26...	0.8	0.60	5.7	19	3	<10	3	250	830
JUL									
24...	0.5	0.50	6.4	19	1	<10	3	4300	4400
AUG									
21...	0.8	0.30	8.2	19	1	<10	1	330	420
SEP									
19...	0.7	0.90	8.9	22	<1	<10	4	1100	1100

07103780 MONUMENT CREEK ABOVE NORTH GATE BOULEVARD AT U.S. AIR FORCE ACADEMY, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT									
30...	70	5	--	110	60	<10	--	--	--
NOV									
30...	100	3	--	110	80	30	--	--	--
DEC									
20...	110	<1	--	80	80	<10	--	--	--
JAN									
22...	90	<1	--	70	70	<10	>160	K30	K40
FEB									
21...	50	1	--	130	110	<10	220	51	130
MAR									
20...	80	2	--	120	70	<10	K13	K2	K20
APR									
24...	70	2	--	100	20	30	80	K4	K24
MAY									
28...	50	6	70	100	30	10	190	K14	100
JUN									
26...	580	5	0	100	100	10	480	120	K700
JUL									
24...	60	5	130	230	100	130	K520	240	K1100
AUG									
21...	90	1	30	50	20	20	68	K40	K520
SEP									
19...	40	<1	30	110	80	30	--	130	K240

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM
DEC							
20...	10:00	22	56	3.3	34	--	--
JAN							
15...	10:45	18	23	1.1	49	--	--
22...	10:30	11	22	0.64	44	--	--
FEB							
21...	10:10	13	34	1.2	--	--	--
MAR							
30...	12:25	12	35	1.1	38	--	--
31...	18:35	22	78	4.6	43	--	--
APR							
02...	16:00	26	243	17	69	--	--
16...	10:30	46	189	24	48	--	--
18...	09:10	63	330	56	--	16	17
24...	12:40	56	159	24	37	--	--
30...	09:15	385	7220	7510	33	--	--
MAY							
01...	16:10	338	3170	2890	31	--	--
03...	16:00	199	1060	570	--	8	11
06...	12:00	147	451	179	34	--	--
09...	12:00	95	237	61	44	--	--
15...	17:50	92	204	51	36	--	--
21...	17:00	164	860	381	52	--	--
28...	13:00	74	156	31	37	--	--
JUN							
26...	12:45	17	24	1.1	71	--	--
JUL							
20...	23:30	110	2660	790	75	--	--
21...	00:30	100	1850	500	76	--	--
24...	12:00	32	146	12	87	--	--
29...	14:10	32	104	8.9	72	--	--
AUG							
12...	17:00	9.0	49	1.2	24	--	--
21...	12:50	9.6	13	0.34	26	--	--
SEP							
19...	09:45	5.2	23	0.32	76	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM
APR						
18...	29	43	62	85	100	--
MAY						
03...	19	31	49	75	97	100

K BASED ON NON-IDEAL COLONY COUNT.

07103800 WEST MONUMENT CREEK AT U.S. AIR FORCE ACADEMY, CO

LOCATION.--Lat 38°58'14", long 104°54'08", in SW¼SW¼ sec.28, T.12 S., R.67 W., El Paso County, Hydrologic Unit 11020003, on left bank 500 ft upstream from diversion to city of Colorado Springs water-treatment plant, 2.7 mi south of U.S. Air Force Academy chapel, and 4.4 mi upstream from mouth.

DRAINAGE AREA.--14.9 mi².

PERIOD OF RECORD.--May 1970 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 7,180 ft above National Geodetic Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 26-28, 30, Jan. 2, 12-15, 20-28, 30 to Feb. 6, 10-13. Records good except for periods of estimated daily discharges, which are fair. Natural flow of stream affected by transmountain diversions from Colorado River basin, storage reservoirs, and operation of water-supply system. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--15 years, 2.23 ft³/s; 1,620 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 80 ft³/s, May 8, 1980, gage height, 2.73 ft, from rating curve extended above 34 ft³/s; maximum gage height, 3.88 ft, Dec. 22, 1983 (backwater from ice); no flow many days in 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 42 ft³/s at 1215 May 1, gage height, 2.32 ft; minimum daily, 0.35 ft³/s, Feb. 2-8, Mar. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.77	7.3	2.0	.93	.36	.40	.66	38	6.2	1.3	1.3	.51
2	.73	7.4	1.8	.94	.35	.45	.99	33	5.7	1.3	1.3	.47
3	.87	7.5	1.8	.92	.35	.40	1.6	27	5.3	1.2	1.1	.46
4	18	7.2	1.9	.85	.35	.40	1.9	23	5.6	1.2	1.1	.74
5	27	6.7	1.9	.85	.35	.35	1.9	19	4.9	1.1	.95	.47
6	21	8.5	1.7	.79	.35	.45	2.0	18	4.2	1.1	.90	.41
7	17	11	1.6	.83	.35	.40	2.1	15	3.8	1.0	.89	.40
8	14	7.8	1.6	.85	.35	.40	2.2	14	3.6	1.0	.84	.39
9	12	5.2	1.5	.78	.41	.40	2.5	13	3.7	.98	.93	.39
10	10	4.9	1.3	.77	.45	.70	2.8	11	3.6	.93	.93	.38
11	8.7	4.7	1.3	.77	.49	.62	2.9	10	3.2	.86	.84	2.9
12	7.6	4.4	1.3	.70	.52	.59	3.1	9.5	3.0	.92	.76	2.9
13	6.6	4.2	1.3	.66	.56	.55	3.2	9.3	2.8	1.0	.74	1.7
14	6.2	4.0	1.4	.66	.60	.50	3.6	8.5	2.6	1.0	.86	1.5
15	5.6	3.8	1.2	.66	.77	.52	3.9	7.3	2.5	.96	.79	1.3
16	5.1	3.6	1.1	.63	.77	.50	4.2	6.5	2.3	.91	.67	1.2
17	5.5	3.5	1.0	.63	.56	.54	4.7	6.8	2.3	.97	.64	1.1
18	5.3	3.1	1.1	.70	.50	.53	5.3	6.6	2.3	1.0	.63	1.1
19	5.0	3.1	1.0	.63	.50	.46	5.7	7.0	2.2	1.1	.67	1.0
20	4.9	3.1	.96	.60	.56	.45	5.6	7.7	2.1	1.7	.71	1.1
21	4.7	2.8	.92	.55	.50	.50	5.7	9.5	2.0	1.4	.65	1.1
22	4.5	2.8	1.2	.55	.50	.50	5.4	15	1.9	1.2	.64	1.0
23	4.4	2.7	1.1	.56	.50	.70	6.0	22	1.8	1.2	.65	.98
24	4.4	2.2	.87	.60	.45	.58	5.6	16	1.7	1.1	.62	.85
25	4.3	2.1	.81	.62	.45	.70	5.7	13	1.6	1.4	.57	.85
26	4.7	1.9	.87	.62	.45	.71	5.6	12	1.7	1.4	.52	.85
27	5.8	1.9	.89	.58	.45	.68	6.0	11	1.5	1.3	.61	.77
28	6.3	2.0	.87	.58	.40	.66	6.9	9.7	1.5	1.3	.63	.85
29	6.5	2.0	.85	.50	---	.45	12	8.8	1.4	1.8	.56	.85
30	6.6	2.0	.93	.48	---	.69	25	7.7	1.3	1.6	.50	.85
31	7.0	---	.90	.39	---	.81	---	6.8	---	1.3	.47	---
TOTAL	241.07	133.4	38.97	21.18	13.20	16.59	144.75	421.7	88.3	36.53	23.97	29.37
MEAN	7.78	4.45	1.26	.68	.47	.54	4.82	13.6	2.94	1.18	.77	.98
MAX	27	11	2.0	.94	.77	.81	25	38	6.2	1.8	1.3	2.9
MIN	.73	1.9	.81	.39	.35	.35	.66	6.5	1.3	.86	.47	.38
AC-FT	478	265	77	42	26	33	287	836	175	72	48	58

CAL YR 1984	TOTAL	843.24	MEAN	2.30	MAX	27	MIN	.23	AC-FT	1670
WTR YR 1985	TOTAL	1209.03	MEAN	3.31	MAX	38	MIN	.35	AC-FT	2400

07103950 KETTLE CREEK NEAR BLACK FOREST, CO

LOCATION.--Lat 39°00'14", long 104°44'21", in NE¼SE¼ sec.14, T.12 S., R.66 W., El Paso County, Hydrologic Unit 11020003, on right bank 400 ft, downstream from bridge on Milan Rd., 1.2 mi downstream from Burgess Creek, and 2.2 mi southwest of Black Forest.

DRAINAGE AREA.--9.01 mi².

PERIOD OF RECORD.--May 1976 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,980 ft above National Geodetic Verticle Datum of 1929, from topographic map. May 1976 to Mar. 17, 1983 at datum 3.0 ft, lower.

REMARKS.--Estimated daily discharges: Nov. 9, 10, 16-21, 27-30, Dec. 1-6, 13-27, Jan. 9 to Mar. 8, July 6-10, Aug. 31 to Sept. 10, Sept. 14-30. Records fair except for estimated daily discharges, which are poor. No known diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--9 years, 1.28 ft³/s; 927 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,300 ft³/s, Aug. 5, 1981, gage height, 4.41 ft, from floodmark, from rating curve extended above 20 ft³/s, on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8.0 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Apr. 29	2145	26	2.46	July 18	1700	*63	2.05
May 6	1515	9.9	1.75	July 20	0130	13	1.26
May 22	0015	15	2.03	July 29	2115	34	1.74
May 30	1830	8.6	1.83	Aug. 3	1530	25	1.56

Minimum daily discharge, 0.64 ft³/s, Feb. 2-4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	2.5	1.4	1.9	.67	1.5	3.1	10	4.3	1.9	5.2	1.4
2	1.8	2.0	1.5	1.5	.64	1.6	2.9	8.8	4.2	1.9	4.5	1.8
3	2.0	2.4	1.4	1.3	.64	1.5	2.9	7.0	3.8	1.9	4.2	1.7
4	2.9	2.3	1.4	1.2	.64	1.4	2.5	6.4	3.9	1.9	3.8	1.4
5	2.2	2.1	1.4	1.5	.70	1.4	3.1	6.0	3.9	1.9	3.5	1.3
6	1.5	2.3	1.6	1.4	.70	1.7	2.6	8.8	3.7	1.7	3.4	1.4
7	1.4	2.2	1.8	1.5	.74	1.6	2.3	6.6	3.5	1.7	3.2	1.4
8	1.3	2.2	1.9	1.5	.84	1.5	2.2	4.6	3.0	1.6	3.5	1.3
9	1.4	2.1	2.4	1.5	.85	1.6	2.1	4.3	3.1	1.8	3.6	1.3
10	1.3	1.9	3.3	1.4	.80	1.6	1.6	3.9	3.0	2.0	3.6	1.3
11	1.3	2.0	2.8	1.4	.88	1.9	1.5	3.4	2.8	1.9	3.5	2.4
12	1.3	2.0	2.8	1.4	.97	2.5	1.8	3.5	2.7	1.9	3.4	2.9
13	1.3	2.2	2.3	1.5	1.1	1.8	2.1	5.2	2.6	2.0	3.2	2.6
14	1.6	2.2	1.6	1.4	1.2	2.2	2.5	5.2	2.5	1.9	3.6	1.6
15	2.0	2.3	2.1	1.4	1.3	2.1	2.3	5.0	2.5	2.0	3.5	1.5
16	1.4	2.1	2.2	1.2	1.3	1.5	2.6	4.7	2.5	2.0	3.3	1.4
17	1.1	2.0	2.2	1.4	1.2	2.3	2.7	4.5	2.4	1.9	3.2	1.2
18	1.3	2.3	2.3	1.3	1.1	2.3	3.0	4.8	2.4	4.9	2.3	1.2
19	1.3	2.6	2.4	1.2	1.2	1.4	3.4	4.5	2.4	6.0	1.6	1.2
20	1.5	2.4	2.3	1.1	1.3	1.9	4.2	4.2	2.3	9.4	1.5	1.3
21	1.6	2.5	2.2	.90	1.3	2.3	4.7	8.3	2.2	8.2	1.5	1.6
22	1.8	2.6	2.1	.92	1.4	2.0	5.5	14	2.2	4.0	1.0	1.6
23	1.9	3.1	2.3	1.0	1.2	2.2	6.0	13	2.2	4.2	.98	1.4
24	1.8	2.5	2.4	1.1	1.4	1.8	6.4	12	2.1	4.9	.98	1.5
25	1.9	2.4	2.5	1.1	1.4	2.1	7.5	5.7	2.1	5.4	.98	1.8
26	2.1	2.2	2.9	1.1	1.3	1.8	8.1	5.2	2.1	5.5	1.3	1.8
27	2.2	1.4	2.7	1.0	1.4	2.2	8.8	5.6	2.0	5.5	1.3	1.5
28	2.2	1.5	2.0	1.1	1.5	2.4	9.9	4.4	2.0	7.9	1.8	1.3
29	2.2	1.6	2.5	1.1	---	2.4	14	3.7	1.9	11	2.0	1.3
30	2.4	1.5	2.9	.94	---	3.5	13	5.0	1.9	5.6	1.9	1.2
31	2.9	---	2.3	.78	---	3.3	---	5.1	---	5.5	1.6	---
TOTAL	54.6	65.4	67.9	39.04	29.67	61.3	135.3	193.4	82.2	119.9	82.94	46.6
MEAN	1.76	2.18	2.19	1.26	1.06	1.98	4.51	6.24	2.74	3.87	2.68	1.55
MAX	2.9	3.1	3.3	1.9	1.5	3.5	14	14	4.3	11	5.2	2.9
MIN	1.1	1.4	1.4	.78	.64	1.4	1.5	3.4	1.9	1.6	.98	1.2
AC-FT	108	130	135	77	59	122	268	384	163	238	165	92

CAL YR 1984 TOTAL 891.27 MEAN 2.44 MAX 23 MIN .20 AC-FT 1770
WTR YR 1985 TOTAL 978.25 MEAN 2.68 MAX 14 MIN .64 AC-FT 1940

07104000 MONUMENT CREEK AT PIKEVIEW, CO

LOCATION.--Lat 38°55'04", long 104°49'05", in NW¼SE¼ sec.18, T.13 S., R.66 W., El Paso County, Hydrologic Unit 11020003, on right bank at downstream side of abandoned bridge at northeast edge of Pikeview, 600 ft upstream from unnamed tributary, 1,200 ft upstream from bridge on U.S. Interstate Highway I-25, and 0.7 mi downstream from Dry Creek.

DRAINAGE AREA.--204 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to September 1949, January 1976 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,203.26 ft above National Geodetic Vertical Datum of 1929. September 1938 to October 1949, nonrecording gage at present site at datum 0.10 ft, lower.

REMARKS.--Estimated daily discharges: Dec. 15 to Feb. 14, Mar. 8-11, May 9-16, June 10-26 July 18-20. Records good except for estimated daily discharges and winter period, which are poor. Natural flow of stream affected by storage reservoirs, power developments, diversions for irrigation, municipal use and return flow from irrigation, and sewage-effluent discharge.

AVERAGE DISCHARGE.--20 years (water years 1939-49, 1977-85), 28.6 ft^3/s; 20,720 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,750 ft^3/s, Aug. 5, 1981, gage height, 7.48 ft, from rating curve extended above 100 ft^3/s, on basis of slope-area measurement of peak flow; no flow July 24, 1939.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 30, 1935, reached a stage of about 14 ft, present datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,020 ft^3/s at 1530 July 28, gage height, 6.67 ft, from rating curve extended above 250 ft^3/s, on basis of three slope-area measurements of peak flow; minimum daily, 16 ft^3/s, Feb. 2-6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	72	39	18	18	39	55	380	109	32	89	32
2	29	69	37	19	16	39	60	340	93	32	111	30
3	34	73	34	21	16	39	60	292	105	32	121	31
4	162	72	32	22	16	38	70	254	95	32	95	30
5	170	69	33	24	16	41	69	221	80	32	80	28
6	148	67	32	24	16	39	72	300	84	29	78	26
7	125	67	34	23	17	41	72	194	87	29	74	24
8	107	66	34	22	18	42	78	185	87	26	72	23
9	97	62	32	22	19	44	82	176	135	30	69	23
10	89	62	31	22	20	47	74	170	110	34	66	26
11	78	60	29	25	21	56	80	155	94	32	64	294
12	73	60	27	28	22	50	91	177	82	32	60	136
13	70	57	25	30	23	48	91	170	74	35	107	62
14	82	52	20	32	24	46	95	140	67	35	69	51
15	78	52	20	31	24	45	109	130	60	34	54	38
16	87	52	20	32	24	45	103	120	59	36	54	36
17	91	51	20	33	27	49	109	152	52	52	51	34
18	87	50	19	32	32	48	113	158	56	60	49	32
19	80	49	20	31	34	46	109	168	51	68	57	34
20	72	51	20	27	33	45	103	158	48	250	40	37
21	67	50	21	25	33	45	103	252	45	113	39	35
22	66	49	21	24	32	46	128	200	43	87	38	40
23	69	50	22	24	35	43	137	168	39	99	37	38
24	69	49	20	24	38	42	119	158	37	86	33	38
25	70	44	20	25	37	44	133	141	35	83	30	39
26	70	43	22	25	34	48	137	139	37	64	27	38
27	76	38	23	24	34	50	119	131	33	54	26	37
28	76	43	23	24	38	51	131	125	33	313	26	38
29	73	42	22	24	---	56	209	125	33	186	28	36
30	74	37	21	23	---	59	425	123	34	113	27	35
31	72	---	20	21	---	55	---	119	---	87	26	---
TOTAL	2567	1658	793	781	717	1426	3336	5721	1997	2227	1797	1401
MEAN	82.8	55.3	25.6	25.2	25.6	46.0	111	185	66.6	71.8	58.0	46.7
MAX	170	73	39	33	38	59	425	380	135	313	121	294
MIN	26	37	19	18	16	38	55	119	33	26	26	23

CAL YR 1984 TOTAL 19922 MEAN 54.4 MAX 170 MIN 14
WTR YR 1985 TOTAL 24421 MEAN 66.9 MAX 425 MIN 16

07104000 MONUMENT CREEK AT PIKEVIEW, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1975 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	ALKA-LINITY LAB (MG/L AS CACO3)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)
OCT										
05...	12:40	167	180	--	12.0	--	--	--	--	--
22...	15:45	65	260	--	4.5	--	--	--	--	--
30...	15:30	74	255	7.0	8.5	9.7	--	408	64	0.05
NOV										
20...	11:15	49	230	--	2.5	--	--	--	--	--
29...	12:25	42	288	7.7	2.5	12.8	--	236	68	0.21
DEC										
18...	09:35	16	370	--	0.5	--	--	--	--	--
20...	11:10	24	345	7.7	1.0	13.0	--	119	81	0.08
JAN										
14...	13:25	33	350	--	2.0	--	--	--	--	--
22...	11:55	24	385	7.9	1.0	12.8	--	132	87	0.12
FEB										
12...	13:00	24	360	--	0.0	--	--	--	--	--
21...	11:20	35	335	--	4.5	10.4	4.3	357	72	0.59
MAR										
12...	12:35	54	300	--	4.0	--	--	--	--	--
20...	13:40	46	--	--	12.0	8.7	2.0	506	81	0.17
APR										
10...	09:55	74	260	--	8.5	--	--	--	--	--
24...	14:05	125	188	7.8	13.0	10.0	2.1	257	45	0.06
MAY										
02...	15:35	321	240	--	14.0	--	--	--	--	--
28...	14:40	125	190	8.0	19.0	8.8	1.4	22	45	0.08
JUN										
05...	12:30	76	260	--	17.5	--	--	--	--	--
26...	13:50	42	300	8.2	17.0	--	1.6	200	70	0.05
JUL										
08...	15:45	24	295	--	26.0	--	--	--	--	--
24...	13:35	410	155	8.3	17.5	9.3	16	3980	64	0.08
30...	15:55	90	240	--	23.0	--	--	--	--	--
AUG										
21...	14:00	44	380	8.3	27.5	6.4	--	426	94	0.06
27...	13:20	25	420	--	22.5	--	--	--	--	--
SEP										
19...	10:55	35	420	8.0	16.0	7.8	1.1	256	103	0.03

DATE	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SULFATE DIS-SOLVED (MG/L AS SO4)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
OCT									
30...	1.0	0.90	9.6	32	<1	<10	8	--	10000
NOV									
29...	1.2	1.40	11	39	<1	<10	8	--	5400
DEC									
20...	0.4	1.60	12	51	<1	<10	8	--	2500
JAN									
22...	0.9	2.00	13	58	<1	<10	5	--	3000
FEB									
21...	1.9	1.80	12	53	<1	<10	8	--	6900
MAR									
20...	1.3	1.60	11	53	3	<10	12	--	10000
APR									
24...	1.0	0.50	5.4	25	2	<10	5	--	4400
MAY									
28...	0.6	0.50	5.4	23	<1	<10	17	5200	5200
JUN									
26...	0.5	1.20	9.5	43	1	10	6	4500	4600
JUL									
24...	0.6	0.70	3.7	23	<1	<10	79	86000	86000
AUG									
21...	0.6	1.30	12	56	<1	<10	8	9400	9400
SEP									
19...	0.6	1.90	11	61	1	<10	9	5600	5600

07104000 MONUMENT CREEK AT PIKEVIEW, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT									
30...	70	<1	--	230	20	50	--	--	--
NOV									
29...	40	8	--	180	30	50	--	--	--
DEC									
20...	70	<1	--	80	40	30	--	--	--
JAN									
22...	40	3	--	100	30	20	K100	K60	410
FEB									
21...	20	14	--	200	50	40	--	290	350
MAR									
20...	20	17	--	250	30	60	>1600	520	1100
APR									
24...	40	9	--	160	20	40	K100	K15	60
MAY									
28...	30	15	--	130	<10	30	K130	K20	170
JUN									
26...	50	8	100	120	20	30	880	150	860
JUL									
24...	60	140	--	1900	<10	520	>2700	>2000	>5000
AUG									
21...	20	10	--	190	<10	70	K1300	>600	880
SEP									
19...	50	35	120	140	20	40	840	470	980

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM
DEC							
20...	11:10	24	484	31	36	--	--
JAN							
15...	11:30	41	313	35	29	--	--
22...	11:30	24	226	15	48	--	--
FEB							
21...	11:20	35	392	37	71	--	--
MAR							
20...	13:40	46	699	88	75	--	--
31...	17:30	63	1690	287	69	--	--
APR							
01...	15:25	66	2510	446	--	--	--
03...	14:50	57	1030	159	--	28	32
16...	11:50	119	998	321	39	--	--
24...	14:05	125	757	255	34	--	--
30...	12:10	435	9100	10700	53	--	--
MAY							
02...	16:00	321	2720	2360	--	10	13
15...	16:30	152	565	232	37	--	--
21...	14:50	268	4960	3590	68	--	--
21...	17:20	251	3630	2460	61	--	--
28...	14:40	125	335	113	57	--	--
JUN							
26...	13:50	42	248	28	73	--	--
JUL							
11...	11:12	37	286	29	--	--	--
24...	13:35	410	8640	9560	57	--	--
25...	18:00	137	2260	836	74	--	--
29...	14:45	73	1800	355	62	--	--
29...	22:55	237	9800	6270	77	--	--
AUG							
12...	15:40	59	322	51	65	--	--
21...	14:00	44	586	70	78	--	--
SEP							
19...	10:55	35	392	37	59	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM
APR						
03...	49	71	88	97	100	--
MAY						
02...	22	36	65	90	98	100

07104905 MONUMENT CREEK AT BIJOU STREET AT COLORADO SPRINGS, CO

LOCATION.--Lat 38°50'14", long 104°49'44", in NW¼NW¼ sec.18, T.14 S., R.66 W., El Paso County, Hydrologic Unit 11020003 at bridge on Bijou Street in Colorado Springs.

PERIOD OF RECORD.--December 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	ALKA-LINITY LAB (MG/L AS CACO3)
OCT 31...	08:40	92	330	--	5.0	9.8	--	412	77
NOV 30...	10:35	40	440	7.8	0.5	11.6	--	149	93
DEC 20...	12:00	37	480	8.0	2.5	12.8	--	248	105
JAN 22...	12:50	24	580	8.1	1.0	11.0	--	295	122
FEB 21...	12:15	39	440	--	4.0	11.0	2.0	652	95
MAR 21...	09:55	24	--	8.1	5.5	9.8	1.4	282	97
APR 25...	10:15	123	263	7.7	6.5	12.0	2.7	1210	71
MAY 29...	10:15	124	--	8.0	14.0	11.0	1.2	326	55
JUN 27...	10:30	46	435	8.2	16.0	11.4	1.6	490	95
JUL 25...	10:30	64	390	8.2	17.5	9.0	1.0	350	90
AUG 22...	10:25	29	550	8.3	18.0	8.4	1.0	550	124
SEP 19...	12:45	37	600	8.2	21.0	7.8	0.9	3000	130

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SULFATE DIS-SOLVED (MG/L AS SO4)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)
OCT 31...	0.02	0.9	1.00	11	52	1	<10	14	--
NOV 30...	0.15	1.0	1.80	14	77	<1	<10	10	--
DEC 20...	0.05	1.3	1.90	16	86	<1	<10	14	--
JAN 22...	0.06	0.9	2.60	15	110	<1	<10	10	--
FEB 21...	0.29	2.1	2.20	13	85	<1	<10	18	--
MAR 21...	0.08	0.8	1.80	13	94	3	<10	10	--
APR 25...	0.05	1.5	0.80	6.7	39	<1	10	26	--
MAY 29...	0.06	0.4	0.60	6.5	39	<1	<10	17	8200
JUN 27...	0.03	0.5	1.60	11	81	6	<10	16	11000
JUL 25...	0.02	0.7	1.40	10	66	<1	<10	6	13000
AUG 22...	0.04	0.7	1.60	15	100	<1	<10	11	12000
SEP 19...	0.03	0.9	2.50	13	120	1	<10	15	9700

07104905 MONUMENT CREEK AT BIJOU STREET AT COLORADO SPRINGS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT									
31...	13000	130	11	240	10	50	250	K74	740
NOV									
30...	5100	30	6	120	20	40	130	47	K120
DEC									
20...	7100	40	4	120	20	30	310	K16	180
JAN									
22...	8000	20	5	180	20	40	>1600	K30	K80
FEB									
21...	14000	30	22	300	20	80	K250	K200	K250
MAR									
21...	5900	30	7	140	10	40	>1100	180	660
APR									
25...	26000	80	38	600	20	160	>1200	--	K2200
MAY									
29...	8200	30	12	200	<10	40	K3200	K110	530
JUN									
27...	11000	20	14	270	<10	60	1300	680	K1900
JUL									
25...	13000	20	11	280	<10	90	800	--	3500
AUG									
22...	12000	20	12	240	<10	80	K2600	--	2000
SEP									
19...	9700	30	51	200	<10	50	>1600	K1800	K1400

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM
DEC							
20...	12:00	37	868	87	56	--	--
JAN							
15...	13:40	42	1900	215	32	--	--
22...	12:50	24	610	40	51	--	--
FEB							
21...	12:15	39	2010	212	32	--	--
MAR							
21...	09:55	24	484	31	57	--	--
31...	15:45	81	3050	667	46	--	--
APR							
01...	17:50	127	5330	1830	69	--	--
03...	16:20	58	1270	198	--	34	40
25...	10:15	123	2350	780	55	--	--
30...	05:00	441	11100	13200	63	--	--
MAY							
02...	18:00	346	3450	3220	--	13	16
15...	14:25	139	1080	405	44	--	--
21...	16:10	329	6100	5420	64	--	--
29...	10:15	124	574	192	50	--	--
JUN							
27...	10:30	46	791	98	60	--	--
JUL							
21...	01:10	116	7960	2490	78	--	--
25...	10:30	64	778	134	70	--	--
25...	18:20	245	6280	4150	62	--	--
29...	16:00	56	1850	280	73	--	--
AUG							
22...	10:25	29	637	50	86	--	--
22...	10:25	29	637	50	86	--	--
SEP							
19...	12:45	37	502	50	72	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM
APR						
03...	61	79	87	95	100	--
MAY						
02...	25	45	69	91	99	100

K BASED ON NON-IDEAL COLONY COUNT.

07105500 FOUNTAIN CREEK AT COLORADO SPRINGS, CO

LOCATION.--Lat 38°48'59", long 104°49'20", in NE¼SW¼ sec.19, T.14 S., R.66 W., El Paso County, Hydrologic Unit 11020003, on left bank 31 ft upstream from bridge on Nevada Ave. in Colorado Springs, 100 ft downstream from mouth of Cheyenne Creek, and 1.3 mi downstream from Monument Creek.

DRAINAGE AREA.--392 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to September 1924, January 1976 to current year. Monthly discharge only for some periods, published in WSP 1311.

GAGE.--Water-stage recorder. Elevation of gage is 5,900 ft above National Geodetic Verticle Datum of 1929, from topographic map. Prior to Oct. 1, 1972, nonrecording gage at same site at different datum.

REMARKS.--Estimated daily discharges: Dec. 15-18, Jan. 16, 18-31, Feb. 1 to Mar.12. Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by storage reservoirs, power developments, ground-water withdrawals, diversions for irrigation and municipal use, and return flow from irrigated areas.

AVERAGE DISCHARGE.--12 years (water years 1922-24, 1977-85), 66.1 ft³/s; 47,890 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,000 ft³/s, July 29, 1978, gage height, 7.15 ft, from rating curve extended above 2,400 ft³/s; minimum daily, 2.0 ft³/s, Aug. 19, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,450 ft³/s at 2145 Sept. 11, gage height, 6.98 ft from flood marks; from rating curve extended on basis of slope-area measurement of peak flow; minimum daily, 29 ft³/s, Sept. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	223	91	61	37	76	90	682	251	55	194	99
2	42	219	93	46	35	73	101	598	221	49	210	71
3	88	224	86	72	35	76	98	524	236	44	196	45
4	787	216	91	85	36	68	108	483	237	49	170	43
5	519	201	73	79	37	68	96	464	198	53	148	34
6	378	192	77	77	39	72	91	581	182	40	125	30
7	280	199	93	71	41	75	89	476	165	39	104	29
8	220	193	95	73	43	80	92	428	162	35	95	30
9	173	168	89	65	44	82	113	389	267	70	120	31
10	145	149	97	56	41	86	110	368	237	67	118	32
11	132	145	101	52	43	90	107	340	191	44	107	665
12	123	145	90	47	45	100	114	388	166	45	85	309
13	113	142	81	52	52	96	110	379	156	58	83	70
14	202	134	72	58	60	90	113	323	136	88	183	61
15	158	125	76	69	66	88	126	300	132	59	83	47
16	136	121	78	60	66	86	139	269	132	60	66	45
17	268	122	75	68	68	83	154	348	115	73	50	42
18	264	117	70	64	78	86	160	360	129	159	49	36
19	207	119	86	60	77	84	159	395	116	448	57	42
20	176	110	84	55	70	79	138	343	111	469	71	46
21	173	107	69	56	68	75	139	559	97	275	51	49
22	158	107	68	58	66	79	197	505	89	210	43	52
23	186	107	79	58	70	75	225	435	89	206	52	46
24	184	108	64	60	73	79	175	398	78	195	50	39
25	162	106	60	62	77	84	238	388	75	272	45	50
26	169	106	79	63	76	90	196	366	95	204	37	48
27	207	88	89	62	71	84	152	344	89	162	35	45
28	219	101	90	63	72	96	208	320	71	450	45	48
29	210	100	79	61	---	90	412	302	58	348	54	48
30	221	90	74	53	---	115	732	285	64	292	42	47
31	221	---	72	44	---	86	---	263	---	199	40	---
TOTAL	6567	4284	2521	1910	1586	2591	4982	12603	4345	4817	2808	2279
MEAN	212	143	81.3	61.6	56.6	83.6	166	407	145	155	90.6	76.0
MAX	787	224	101	85	78	115	732	682	267	469	210	665
MIN	42	88	60	44	35	68	89	263	58	35	35	29
AC-FT	13030	8500	5000	3790	3150	5140	9880	25000	8620	9550	5570	4520

CAL YR 1984 TOTAL 38070 MEAN 104 MAX 787 MIN 20 AC-FT 75510
WTR YR 1985 TOTAL 51293 MEAN 141 MAX 787 MIN 29 AC-FT 101700

07105500 FOUNTAIN CREEK AT COLORADO SPRINGS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1975 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	ALKA-LINITY LAB (MG/L AS CACO3)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)
OCT										
05...	11:25	163	430	--	5.0	--	--	--	--	--
31...	10:15	221	345	--	8.0	9.8	--	276	78	0.01
NOV										
20...	14:10	109	430	--	7.0	--	--	--	--	--
30...	12:05	75	410	7.7	2.5	13.3	--	142	79	0.07
DEC										
18...	12:50	70	435	--	2.0	--	--	--	--	--
20...	14:25	77	455	8.0	4.5	12.8	--	203	99	0.04
JAN										
14...	14:45	55	520	--	3.0	--	--	--	--	--
22...	14:35	63	460	7.8	2.0	11.8	--	153	95	0.04
FEB										
14...	14:15	64	550	--	4.0	--	--	--	--	--
21...	14:20	68	460	--	8.0	9.8	1.5	382	100	0.22
MAR										
12...	15:45	101	620	--	5.5	--	--	--	--	--
21...	12:30	74	--	8.3	12.0	9.6	3.9	173	101	0.05
APR										
01...	13:50	92	500	--	15.0	--	--	--	--	--
10...	13:00	123	400	--	17.0	--	--	--	--	--
25...	13:00	195	270	7.9	9.0	9.1	4.0	632	66	0.07
29...	24:00	682	280	--	8.5	--	--	--	--	--
MAY										
02...	12:45	601	280	--	16.5	--	--	--	--	--
29...	13:00	282	225	7.9	19.0	9.1	--	180	48	0.06
JUN										
05...	15:35	199	360	--	21.0	--	--	--	--	--
27...	13:25	108	370	8.1	20.0	8.8	2.0	328	81	0.03
JUL										
08...	11:10	43	525	--	24.0	--	--	--	--	--
25...	12:45	170	345	8.1	16.0	8.8	--	309	75	0.02
AUG										
01...	11:05	178	400	--	20.0	--	--	--	--	--
13...	15:20	62	510	--	24.5	--	--	--	--	--
22...	12:45	43	489	8.2	24.0	6.5	--	316	105	0.05
28...	11:40	48	630	--	21.0	--	--	--	--	--
SEP										
19...	14:45	42	500	8.1	21.0	7.5	--	186	112	0.02

DATE	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SULFATE DIS-SOLVED (MG/L AS SO4)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
OCT									
31...	0.9	1.00	11	57	1	<10	11	--	8800
NOV									
30...	0.6	1.30	21	67	<1	<10	7	--	4400
DEC									
20...	0.5	1.60	18	85	<1	<10	11	--	6400
JAN									
22...	0.5	1.60	19	80	<1	10	8	--	5100
FEB									
21...	1.4	2.00	15	96	<1	<10	11	--	9200
MAR									
21...	0.9	1.60	14	93	<1	<10	8	--	4200
APR									
25...	1.0	0.70	8.2	43	<1	10	16	--	8900
MAY									
29...	0.3	0.60	5.8	35	<1	<10	12	--	4600
JUN									
27...	0.6	1.20	10	66	1	<10	11	5000	5000
JUL									
25...	0.5	1.10	11	59	<1	<10	10	17000	17000
AUG									
22...	0.5	1.50	14	100	<1	<10	8	7200	7200
SEP									
19...	0.6	1.90	11	96	<1	<10	8	4900	4900

07105500 FOUNTAIN CREEK AT COLORADO SPRINGS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT									
31...	100	11	--	210	30	50	280	140	590
NOV									
30...	1300	6	--	160	80	40	230	K29	570
DEC									
20...	40	3	--	140	50	50	310	K110	680
JAN									
22...	30	2	--	150	40	30	>800	270	290
FEB									
21...	20	15	--	230	50	60	K270	64	K300
MAR									
21...	20	<1	--	160	50	30	1400	K60	160
APR									
25...	50	41	--	390	30	110	2200	K550	K1500
MAY									
29...	20	7	--	160	10	30	K8000	82	360
JUN									
27...	30	13	170	210	40	80	K2400	K450	K1400
JUL									
25...	40	24	390	420	30	110	K2900	--	>830
AUG									
22...	20	16	160	210	50	60	--	--	--
SEP									
19...	30	72	120	170	50	50	>1600	K2000	K1800

K BASED ON NON-IDEAL COLONY COUNT.

07105500 FOUNTAIN CREEK AT COLORADO SPRINGS, CO--Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM
DEC							
20...	14:25	77	481	100	69	--	--
JAN							
15...	14:10	47	527	67	66	--	--
22...	14:35	63	323	55	48	--	--
FEB							
21...	14:20	68	454	83	76	--	--
MAR							
21...	12:30	74	234	47	77	--	--
31...	14:30	104	1870	525	63	--	--
APR							
01...	13:50	92	1320	328	64	--	--
01...	18:05	152	4000	1640	67	--	--
04...	14:10	108	1130	330	--	28	37
16...	15:20	170	648	297	56	--	--
25...	13:00	195	1700	895	42	--	--
30...	00:10	626	6060	10200	55	--	--
MAY							
01...	13:15	668	4380	7900	46	--	--
02...	12:50	605	3720	6080	30	--	--
03...	12:15	516	2210	3080	--	10	13
15...	11:45	302	719	586	40	--	--
21...	15:15	600	7220	11700	50	--	--
22...	12:50	456	2060	2540	50	--	--
29...	13:00	282	334	254	45	--	--
JUN							
27...	13:25	108	534	156	80	--	--
JUL							
11...	14:45	43	82	9.5	75	--	--
20...	20:30	824	8960	19900	63	--	--
20...	21:00	704	7470	14200	60	--	--
20...	21:15	668	7080	12800	59	--	--
22...	13:45	178	538	259	64	--	--
25...	12:45	170	677	311	56	--	--
25...	15:45	430	2730	3170	56	--	--
25...	16:15	674	7090	12900	43	--	--
25...	16:30	662	6760	12100	47	--	--
29...	16:30	268	1510	1090	50	--	--
AUG							
22...	12:45	43	425	49	1	--	--
SEP							
19...	14:45	42	193	22	77	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM
APR						
04...	58	78	88	95	100	--
MAY						
03...	22	39	59	87	99	100

07105530 FOUNTAIN CREEK BELOW JANITELL ROAD BELOW COLORADO SPRINGS, CO

LOCATION.--Lat 38°48'11", long 104°47'43", in NE¼SE¼ sec.29, T.14 S., R.66 W., El Paso County, Hydrologic Unit 11020003, approximately 200 ft downstream from Janitell Road below Colorado Springs.

PERIOD OF RECORD.--April 1975 to June 1976, May 1979 to September 1979, December 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)
OCT							
31...	11:40	293	595	--	9.0	10.4	--
NOV							
30...	13:15	138	660	7.7	5.5	10.6	--
DEC							
21...	10:30	78	700	7.7	1.5	11.8	--
JAN							
23...	10:30	105	790	7.6	4.0	11.0	--
FEB							
22...	09:50	100	780	7.5	6.0	10.2	16
MAR							
22...	09:25	87	750	7.7	8.0	9.3	23
APR							
26...	10:00	235	480	7.7	7.0	11.0	7.5
MAY							
30...	10:05	312	400	7.8	12.0	9.4	--
JUN							
28...	09:50	112	670	7.8	15.0	7.0	--
JUL							
26...	10:05	281	410	7.8	15.5	12.4	7.8
AUG							
23...	10:10	132	728	7.8	18.0	8.8	11
SEP							
20...	10:10	185	688	7.7	13.0	7.2	18

DATE	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT							
31...	196	3.50	4.6	1.00	1500	K72	350
NOV							
30...	103	6.30	9.0	1.60	1100	110	150
DEC							
21...	67	6.30	8.5	1.60	700	51	770
JAN							
23...	36	9.80	11	1.40	>1600	K1500	K1600
FEB							
22...	100	9.10	11	1.60	2000	210	840
MAR							
22...	226	9.10	11	1.30	8000	330	1000
APR							
26...	1120	3.10	4.6	0.80	1200	K72	3200
MAY							
30...	<1	1.90	2.4	0.70	K12000	K120	K510
JUN							
28...	143	4.30	4.3	5.00	K12000	300	640
JUL							
26...	344	2.30	2.5	0.70	K5900	--	1800
AUG							
23...	300	5.30	6.2	1.20	K18000	K1400	K2300
SEP							
20...	490	4.10	6.9	1.90	K28000	K3600	K5900

K BASED ON NON-IDEAL COLONY COUNT.

07105780 B DITCH DRAIN NEAR SECURITY, CO

LOCATION.--Lat 38°45'09", long 104°45'43", in SW¼SE¼ sec.10, T. 15 S., R.66 W., El Paso County, Hydrologic Unit 11020003, on left bank, on Fort Carson Military Reservation, 800 ft upstream from Interstate 25, 0.7 mi upstream from mouth, and 1.0 mi southwest of Security.

DRAINAGE AREA.--Undetermined.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1981 to current year

GAGE.--Water-stage recorder. Elevation of gage is 5,724 ft above National Geodetic Verticle Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 26 to Dec. 7, Dec. 13-14, 16, 21, 25-27, 30, Jan. 3-4, 9-10, 21-26, Feb. 1-7, 9-17, 24. Records good except those for periods of estimated daily discharges, which are poor. Unknown amounts of flow are introduced to the stream from activities in the cantonment area of Fort Carson, upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,700 ft^3/s, Aug. 15, 1981, gage height, 13.78 ft, result of slope-area measurement of peak flow; minimum daily, 0.02 ft^3/s, Oct. 4, Dec. 28, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 310 ft^3/s at 2300 July 19, gage height, 7.60 ft, from rating curve extended above 15 ft^3/s, on basis of slope-area measurements of peak flow; minimum daily, 0.03 ft^3/s, Feb. 1-3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.12	.81	.45	.22	.03	.80	4.8	1.0	.49	.71	.80	.45
2	.13	.74	.45	.21	.03	.75	6.4	.85	.48	.61	.68	.43
3	.73	.75	.40	.30	.03	.81	1.6	.82	.51	.62	.64	.40
4	8.8	.61	.35	.40	.05	.74	.98	.78	.52	.37	.62	.44
5	.95	.53	.40	.45	.06	.76	.80	1.3	.52	.44	.57	.43
6	.35	.57	.50	.35	.08	.75	.70	3.8	.52	.68	.62	.42
7	.32	.56	.55	.20	.09	.72	.65	.78	.49	.48	.52	.39
8	.31	.51	.49	.14	.21	.77	.64	.67	.45	.78	.49	.39
9	.34	.45	.39	.18	.23	.79	.68	.63	.64	1.3	.79	.43
10	.45	.45	.43	.19	.23	.83	.62	.63	.83	.69	.51	.43
11	.41	.47	.38	.18	.35	.81	.59	.60	.40	.51	.44	4.7
12	.38	.47	.31	.38	.45	2.5	.61	2.0	.36	.45	.44	.77
13	.36	.44	.31	.40	.60	.92	.57	.94	.36	1.4	.40	.44
14	5.2	.38	.33	.38	.65	.70	.56	.58	.37	.72	.63	.41
15	1.2	.36	.35	.35	.60	.70	.58	.52	.39	.63	.42	.42
16	12	.38	.56	.24	.50	.66	.58	.50	.36	.69	.41	.41
17	20	.40	.51	.35	.34	.65	.55	4.8	.39	.70	.40	.39
18	7.9	.37	.60	.25	.25	.65	.61	1.4	.44	1.2	.44	.37
19	4.7	.37	.38	.16	.37	.65	.62	2.3	.38	20	.41	.39
20	2.3	.36	.45	.10	.31	.59	.66	1.4	.41	13	.39	.49
21	3.5	.33	.40	.11	.23	.62	.73	22	.40	1.0	.39	.48
22	1.9	.29	.27	.12	.31	.64	2.1	2.3	.42	1.3	.42	.41
23	5.4	.32	.31	.21	.37	.55	1.4	.73	.42	.87	.39	.38
24	8.9	.31	.28	.25	.40	.65	.74	.62	.42	.72	.38	.72
25	5.4	.30	.30	.21	.49	.63	3.8	.55	.42	3.9	.40	.58
26	6.0	.28	.35	.14	.43	.52	1.2	.54	.50	.64	.41	.40
27	6.3	.28	.30	.11	.65	.49	.74	.51	.39	.59	.38	.40
28	3.8	.33	.26	.14	.78	1.9	4.0	.52	.40	21	.97	.37
29	2.6	.38	.25	.11	---	3.0	15	.49	.56	1.8	.53	.42
30	1.8	.40	.24	.08	---	5.3	2.5	.48	.57	.78	.38	.37
31	1.3	---	.24	.06	---	3.2	---	.47	---	.70	.39	---
TOTAL	113.85	13.20	11.79	6.97	9.12	34.05	56.01	55.51	13.81	79.28	15.66	17.53
MEAN	3.67	.44	.38	.22	.33	1.10	1.87	1.79	.46	2.56	.51	.58
MAX	20	.81	.60	.45	.78	5.3	15	22	.83	21	.97	4.7
MIN	.12	.28	.24	.06	.03	.49	.55	.47	.36	.37	.38	.37
AC-FT	226	26	23	14	18	68	111	110	27	157	31	35

	TOTAL		MEAN		MAX		MIN		AC-FT	
CAL YR 1984	TOTAL	319.31	MEAN	.87	MAX	52	MIN	.05	AC-FT	633
WTR YR 1985	TOTAL	426.78	MEAN	1.17	MAX	22	MIN	.03	AC-FT	847

07105780 B DITCH DRAIN NEAR SECURITY, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT 31...	12:25	1.1	3520	--	11.0	9.4	--	27	0.04	2.0	10.0
NOV 30...	13:55	0.4	6000	8.3	1.0	15.8	--	20	0.09	0.8	25.0
DEC 21...	11:10	0.34	5100	8.3	0.5	13.2	--	3	0.10	0.7	15.0
JAN 23...	11:15	0.17	--	8.0	0.0	13.6	--	8	0.11	0.7	18.0
FEB 22...	10:40	0.19	4050	8.0	0.5	13.3	1.8	70	0.10	2.0	14.0
MAR 22...	10:40	0.69	6000	8.2	8.0	13.2	1.4	45	0.13	1.6	40.0
APR 26...	11:10	1.3	3730	8.1	8.5	9.4	2.8	63	0.07	1.4	6.30
MAY 30...	11:15	0.52	4350	8.3	20.5	10.4	--	8	0.10	1.0	15.0
JUN 28...	10:50	0.44	3050	8.3	21.0	6.8	--	18	0.07	0.8	7.90
JUL 26...	11:10	0.59	2890	8.1	21.0	8.0	1.4	30	0.07	0.8	6.40
AUG 23...	11:10	0.44	5300	8.3	22.0	11.8	1.6	13	0.08	1.6	19.0
SEP 20...	11:15	0.48	3500	8.0	12.0	8.0	10	7	0.07	1.3	11.0

07105800 FOUNTAIN CREEK AT SECURITY, CO

LOCATION.--Lat 38°43'46", long 104°44'00", in SW¼ sec.24, T.15 S., R.66 W., El Paso County, Hydrologic Unit 11020003, on left bank on upstream side of Carson Road bridge, 0.9 mi southwest of South Security School, 3.5 mi northeast of Fountain, and 5.5 mi upstream from Jimmy Camp Creek.

DRAINAGE AREA.--495 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,640 ft above National Geodetic Verticle Datum of 1929, from topographic map. Prior to Oct. 26, 1966, at site 1,040 ft upstream at datum 6.00 ft, higher. Oct. 26, 1966, to July 18, 1972, at site 980 ft upstream at datum 6.00 ft, higher, July 19, 1972, to Feb. 20 1980, at site 980 ft downstream at datum 6.00 ft, lower.

REMARKS.--Estimated daily discharges: Jan. 21, 22, 31, Feb. 1-7, and May 20, 21. Records good except for periods of estimated record and those above 2,000 ft^3/s, which are fair. Natural flow of stream affected by storage reservoirs, power developments, ground-water withdrawals, diversions for irrigation of about 5,100 acres and municipal use, and return flow from irrigated areas.

AVERAGE DISCHARGE.--21 years, 80.1 ft^3/s; 58,030 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,000 ft^3/s, July 24, 1965, gage height, 11.30 ft, site and datum then in use, from floodmarks, from rating curve extended above 2,900 ft^3/s, on basis of slope-area measurement of peak flow; minimum daily, 1.9 ft^3/s, Mar. 1, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,800 ft^3/s at 2230 July 19, gage height, 4.75 ft, from rating curve based on slope-area measurement of peak flow; minimum daily, 80 ft^3/s, Feb. 1-2.

REVISIONS.--The maximum discharge for the water year 1984 has been revised to 2,590 ft^3/s at 2145 Aug. 18, 1984, gage height, 4.05 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95	264	139	125	80	121	189	800	300	102	209	194
2	91	246	138	112	80	115	205	703	282	95	335	151
3	99	252	126	134	81	121	189	640	276	94	245	98
4	1270	244	126	137	82	107	189	592	281	101	258	103
5	553	235	116	134	84	107	180	582	263	100	201	93
6	386	233	109	133	88	110	167	782	259	90	182	93
7	313	225	124	127	90	110	163	466	233	87	162	92
8	271	222	115	133	96	110	158	394	234	87	155	106
9	267	213	122	123	98	115	171	362	485	182	199	95
10	225	189	115	118	96	118	179	350	336	142	182	92
11	220	189	120	118	103	121	179	345	248	98	151	691
12	214	191	111	118	111	166	187	549	215	96	129	547
13	215	188	103	119	114	120	184	474	203	131	115	151
14	383	178	94	122	119	119	192	332	178	125	346	127
15	265	170	103	120	135	117	201	305	177	99	177	107
16	227	166	104	116	135	115	213	300	180	98	151	105
17	443	171	101	110	134	115	220	310	167	106	140	107
18	386	172	90	115	144	116	226	466	171	172	147	96
19	284	168	122	118	136	119	229	561	161	511	139	107
20	251	159	123	108	119	119	226	430	162	846	153	118
21	256	163	114	105	117	118	224	800	145	307	129	134
22	238	167	113	105	110	119	265	582	141	240	126	132
23	311	166	120	109	118	116	428	414	137	266	123	103
24	359	164	113	113	124	125	258	391	128	288	119	89
25	285	165	125	109	133	127	326	393	127	431	113	121
26	306	163	136	105	124	129	300	401	132	361	92	100
27	343	140	147	98	118	136	237	371	130	319	87	104
28	342	143	146	104	118	156	252	348	116	580	99	102
29	316	151	138	101	---	169	527	330	102	431	100	112
30	310	137	131	90	---	217	830	309	105	279	92	113
31	288	---	136	84	---	172	---	306	---	203	89	---
TOTAL	9812	5634	3720	3563	3087	3945	7494	14388	6074	7067	4945	4383
MEAN	317	188	120	115	110	127	250	464	202	228	160	146
MAX	1270	264	147	137	144	217	830	800	485	846	346	691
MIN	91	137	90	84	80	107	158	300	102	87	87	89
AC-FT	19460	11180	7380	7070	6120	7820	14860	28540	12050	14020	9810	8690

CAL YR 1984	TOTAL	57712	MEAN	158	MAX	1270	MIN	53	AC-FT	114500
WTR YR 1985	TOTAL	74112	MEAN	203	MAX	1270	MIN	80	AC-FT	147000

07105800 FOUNTAIN CREEK AT SECURITY,CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1984 to September 1985

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM
DEC												
20...	15:20	121	109	36	51	--	--	--	--	--	--	--
JAN												
22...	15:30	115	269	84	64	--	--	--	--	--	--	--
FEB												
21...	15:10	133	306	110	86	--	--	--	--	--	--	--
MAR												
21...	14:00	133	397	143	55	--	--	--	--	--	--	--
31...	18:40	200	1950	1050	55	--	--	--	--	--	--	--
APR												
01...	18:40	265	2370	1700	64	--	--	--	--	--	--	--
04...	16:55	197	993	528	--	28	42	55	74	83	92	100
16...	17:15	208	753	423	44	--	--	--	--	--	--	--
25...	14:15	285	1890	1450	49	--	--	--	--	--	--	--
29...	18:35	1320	6910	24700	59	--	--	--	--	--	--	--
29...	21:15	1480	9120	36500	62	--	--	--	--	--	--	--
MAY												
01...	14:30	754	3920	7980	49	--	--	--	--	--	--	--
03...	09:00	633	2280	3900	--	11	15	26	44	64	87	100
15...	10:15	310	824	690	34	--	--	--	--	--	--	--
15...	14:15	315	982	835	22	--	--	--	--	--	--	--
18...	13:20	401	1400	1520	45	--	--	--	--	--	--	--
22...	13:35	712	2660	5110	56	--	--	--	--	--	--	--
25...	19:30	1090	7140	21000	55	--	--	--	--	--	--	--
29...	14:30	356	556	534	34	--	--	--	--	--	--	--
JUN												
27...	14:30	188	408	207	50	--	--	--	--	--	--	--
JUL												
11...	16:14	136	129	47	66	--	--	--	--	--	--	--
22...	11:10	240	877	568	59	--	--	--	--	--	--	--
25...	13:55	235	4560	2890	10	--	--	--	--	--	--	--
29...	11:15	408	2680	2950	64	--	--	--	--	--	--	--
AUG												
12...	10:31	118	338	108	44	--	--	--	--	--	--	--
SEP												
19...	15:55	103	422	117	--	--	--	--	--	--	--	--

07105820 CLOVER DITCH DRAIN NEAR WIDEFIELD, CO

LOCATION.--Lat 38°43'07", long 104°43'43", in SW¼NE¼ sec.25, T.15 S., R.66 W., El Paso County, Hydrologic Unit 11020003, on left bank 200 ft downstream from Fort Carson Military Road No. 1, 500 ft upstream from bridge on Interstate 25, 0.2 mi upstream from mouth, and 1.2 mi south of Widefield.

DRAINAGE AREA.--Not determined.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1981 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,620 ft above National Geodetic Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 31- Feb. 4. Records good except for period of estimated daily discharges, and those above 50 ft^3/s, which are poor. This station is operated primarily to monitor low flows downstream from Fort Carson sewage-treatment plant.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,500 ft^3/s, July 28, 1982, gage height, 9.64 ft, from rating curve extended above 50 ft^3/s; no flow Oct. 5, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 230 ft^3/s at 2400 July 19, gage height, 7.09 ft, from rating curve extended above 50 ft^3/s; minimum daily, 2.0 ft^3/s, Feb. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	11	5.9	4.0	2.0	2.7	10	8.4	6.4	5.5	20	5.4
2	3.9	11	6.4	3.8	2.5	2.6	10	8.0	5.9	4.6	8.0	4.0
3	4.3	11	6.2	3.5	3.0	2.5	9.2	7.9	6.2	5.2	7.4	4.1
4	10	10	5.7	3.1	3.5	2.5	8.6	7.7	7.1	5.7	6.9	5.3
5	5.9	9.5	5.3	3.2	4.9	2.2	8.0	8.2	6.0	6.1	6.7	5.4
6	5.2	8.6	6.5	3.3	5.8	2.2	6.3	16	6.2	4.9	5.8	4.9
7	5.2	8.6	6.6	3.2	5.5	2.3	5.5	7.3	6.8	5.2	5.3	5.0
8	5.5	7.1	6.0	3.1	5.9	2.8	4.8	7.1	6.7	4.9	5.2	5.2
9	6.1	7.2	5.3	3.1	5.0	2.9	5.2	6.7	6.6	5.8	6.7	5.1
10	6.7	6.9	4.0	3.1	4.3	2.8	5.1	6.6	6.6	5.9	6.6	3.5
11	7.1	7.1	4.7	2.9	4.3	2.9	4.9	6.2	7.1	4.2	6.1	7.0
12	8.0	7.4	4.8	2.9	4.4	6.2	4.5	7.3	7.5	3.4	5.3	8.4
13	8.4	7.9	7.2	3.3	4.5	5.2	2.9	6.8	8.1	5.8	5.3	7.4
14	17	7.2	4.6	3.5	4.1	4.9	2.3	6.8	7.2	8.0	5.6	7.2
15	9.6	7.0	3.7	3.7	4.2	4.6	2.5	6.5	5.4	7.7	5.7	6.2
16	13	6.3	5.3	3.4	3.6	4.5	2.8	6.6	4.9	7.0	5.6	6.5
17	21	6.2	4.2	2.6	3.2	4.2	2.5	11	5.8	6.9	5.6	7.2
18	17	5.8	4.1	2.3	3.0	3.7	2.8	12	5.6	7.0	5.4	7.2
19	15	6.0	4.9	2.2	2.7	3.5	2.0	9.5	5.8	15	5.4	5.8
20	14	5.2	4.7	2.1	3.1	3.3	2.1	7.7	6.4	24	3.9	6.5
21	15	4.4	4.4	2.7	2.9	3.0	2.5	30	5.9	12	4.0	7.1
22	14	4.6	4.3	2.8	3.0	3.6	3.3	13	5.4	14	4.2	6.5
23	20	5.2	4.4	3.7	3.0	3.6	5.9	8.3	5.2	15	6.0	6.6
24	21	5.4	4.0	3.9	2.4	3.4	6.4	7.7	5.9	12	6.1	7.6
25	16	5.1	4.1	3.7	2.6	3.5	8.6	8.0	6.9	16	5.8	6.4
26	16	5.2	4.7	3.8	2.8	3.0	7.1	7.8	6.7	6.9	5.7	5.6
27	18	5.4	4.6	4.2	2.8	2.9	6.7	7.1	5.5	7.6	5.4	6.1
28	14	5.4	4.2	4.1	2.8	5.4	11	7.2	4.4	18	4.8	6.0
29	13	5.7	3.9	3.5	---	4.8	17	7.2	5.5	14	5.2	6.5
30	11	4.4	4.0	3.8	---	9.2	9.6	7.3	6.2	13	6.2	6.6
31	12	---	4.1	3.0	---	9.0	---	5.9	---	12	5.2	---
TOTAL	356.9	207.8	152.8	101.5	101.8	119.9	180.1	273.8	185.9	283.3	191.1	182.3
MEAN	11.5	6.93	4.93	3.27	3.64	3.87	6.00	8.83	6.20	9.14	6.16	6.08
MAX	21	11	7.2	4.2	5.9	9.2	17	30	8.1	24	20	8.4
MIN	3.9	4.4	3.7	2.1	2.0	2.2	2.0	5.9	4.4	3.4	3.9	3.5
AC-FT	708	412	303	201	202	238	357	543	369	562	379	362

CAL YR 1984	TOTAL	2260.3	MEAN	6.18	MAX	125	MIN	1.7	AC-FT	4480
WTR YR 1985	TOTAL	2337.2	MEAN	6.40	MAX	30	MIN	2.0	AC-FT	4640

07105820 CLOVER DITCH DRAIN NEAR WIDEFIELD, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT 31...	13:05	11	1570	--	14.0	7.9	--	49	6.80	8.5	3.90
NOV 30...	14:35	6.6	1580	7.9	10.0	9.1	--	27	14.0	25	3.10
DEC 21...	11:45	4.7	1500	8.0	8.0	9.7	--	8	8.30	11	3.90
JAN 23...	11:55	3.9	1570	8.1	5.0	10.6	--	23	4.80	5.5	7.40
FEB 22...	11:20	4.1	1500	8.0	9.5	11.2	16	15	9.10	9.5	5.20
MAR 22...	11:20	4.5	1500	8.2	13.0	9.9	16	6	9.60	11	4.40
APR 26...	11:55	5.9	1200	7.9	10.0	8.6	11	65	4.90	5.5	3.90
MAY 30...	11:55	7.1	1340	8.3	18.5	9.5	--	8	2.30	3.6	3.80
JUN 28...	11:30	4.0	1560	8.4	21.0	10.0	--	19	1.20	2.8	5.50
JUL 26...	11:55	6.6	1190	8.0	20.5	8.0	29	466	1.50	3.0	3.70
AUG 23...	11:50	6.8	1600	8.3	22.0	10.2	14	7	4.50	7.0	4.60
SEP 20...	11:55	6.8	1500	7.9	14.5	7.0	15	10	3.30	4.9	5.20

07105900 JIMMY CAMP CREEK AT FOUNTAIN, CO

LOCATION.--Lat 38°41'04", long 104°41'17", in NW¼SE¼ sec.5, T.16 S., R.65 W., El Paso County, Hydrologic Unit 11020003, on right bank at downstream side of bridge on county road, 1,000 ft east of Fountain, and 1.5 mi upstream from mouth.

DRAINAGE AREA.--65.6 mi^2.

PERIOD OF RECORD.--January 1976 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,530 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 17-21, Jan. 2, 12, 23, Jan.30 to Feb. 10, Mar. 5-12, July 20-29, and Aug. 21 to Sept. 30. Records fair except for periods of estimated daily discharges , and those from 40 to 1,000 ft^3/s, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--9 years, 2.59 ft^3/s; 1,880 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,600 ft^3/s, July 28, 1985, from rating curve extended above 1,300 ft^3/s, on basis of slope-area measurement of peak flow, gage height, 6.25 ft, from floodmark; minimum daily, 0.20 ft^3/s, July 18, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,600 ft^3/s at about 1630 July 28, from rating curve extended above 1,300 ft^3/s on basis of slope-area measurement of peak flow, gage height, 6.25 ft; minimum daily, 0.42 ft^3/s, Feb. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	2.5	2.1	1.4	.42	1.0	1.6	1.4	1.3	1.1	4.4	1.9
2	2.7	2.5	2.4	1.4	.43	.91	1.6	1.4	1.4	1.1	10	2.1
3	2.9	2.2	2.4	1.6	.47	.86	1.4	1.4	1.4	1.0	2.8	1.8
4	4.3	2.3	2.3	1.7	.54	.65	1.2	1.4	1.4	.98	2.7	2.0
5	3.4	2.4	2.1	1.4	.60	.70	1.2	1.4	1.4	1.0	2.9	1.9
6	2.4	2.9	2.2	1.3	.64	.94	1.3	1.7	1.3	1.1	3.0	1.8
7	2.4	3.0	2.6	1.3	.80	1.1	1.3	1.5	1.1	.99	2.8	1.7
8	2.4	2.6	2.5	1.3	1.0	1.0	1.3	5.7	1.0	.95	2.1	1.7
9	2.6	2.8	2.9	1.1	1.6	1.1	1.3	1.8	1.0	.92	2.1	1.9
10	2.6	2.8	2.6	1.4	1.2	1.4	1.2	1.6	1.0	1.0	2.2	2.0
11	2.6	2.8	2.4	1.1	1.7	1.3	1.1	1.5	.78	1.1	2.1	6.8
12	2.8	2.7	2.3	1.4	1.2	1.4	1.0	1.5	.78	1.7	2.0	2.9
13	2.4	2.2	2.0	1.4	1.0	1.4	.96	1.7	.78	2.0	2.3	2.2
14	3.4	2.0	1.7	1.4	1.2	1.6	.84	1.5	.78	2.2	2.8	2.1
15	4.2	2.2	1.8	1.4	1.2	1.8	.73	1.5	.78	2.3	2.2	2.2
16	17	1.8	1.8	1.2	1.1	1.6	.78	1.4	.88	3.0	2.3	2.0
17	3.5	1.8	2.0	1.2	.90	1.6	.71	1.4	.88	3.2	2.7	1.9
18	2.8	1.8	1.8	.96	.94	1.6	.70	1.6	1.0	2.8	3.2	1.7
19	3.3	1.9	1.8	.94	.88	1.6	.61	1.8	.87	4.1	3.1	1.9
20	2.9	2.0	1.9	.97	.86	1.5	.57	1.8	.88	36	2.8	2.4
21	3.1	2.1	2.0	.92	.82	1.5	.51	2.2	.90	4.6	2.6	2.3
22	3.4	1.9	1.8	.81	.85	1.4	.45	2.1	.93	3.5	2.3	2.1
23	3.6	2.1	1.9	.70	1.0	1.4	.63	1.6	.91	3.4	2.1	1.9
24	3.8	2.5	1.6	.61	1.1	1.4	.58	1.5	.93	3.5	2.4	3.3
25	3.4	2.2	1.6	.56	1.0	1.3	.53	1.4	.94	4.4	2.1	3.1
26	3.6	1.8	1.7	.65	.79	1.3	.47	1.4	.95	3.9	2.0	2.6
27	3.7	1.7	1.6	.55	.85	1.4	.50	1.3	1.0	3.5	1.8	2.4
28	3.4	2.6	1.2	.71	.90	1.5	.63	1.3	.98	700	1.8	2.5
29	3.2	2.3	1.4	.65	---	1.6	.87	1.3	.99	60	2.2	2.6
30	2.8	2.2	1.5	.60	---	1.5	.97	1.4	1.0	7.6	2.0	2.6
31	2.9	---	1.6	.50	---	1.5	---	1.4	---	3.3	2.0	---
TOTAL	110.1	68.6	61.5	33.13	25.99	40.86	27.54	51.9	30.24	866.24	83.8	70.3
MEAN	3.55	2.29	1.98	1.07	.93	1.32	.92	1.67	1.01	27.9	2.70	2.34
MAX	17	3.0	2.9	1.7	1.7	1.8	1.6	5.7	1.4	700	10	6.8
MIN	2.4	1.7	1.2	.50	.42	.65	.45	1.3	.78	.92	1.8	1.7
AC-FT	218	136	122	66	52	81	55	103	60	1720	166	139

CAL YR 1984	TOTAL	1039.81	MEAN	2.84	MAX	120	MIN	.80	AC-FT	2060
WTR YR 1985	TOTAL	1470.20	MEAN	4.03	MAX	700	MIN	.42	AC-FT	2920

07105905 FOUNTAIN CREEK ABOVE LITTLE FOUNTAIN CREEK BELOW FOUNTAIN, CO

LOCATION.--Lat 38°37'50", long 104°40'50", in SW¼NW¼ sec.28, T.16 S., R.65 W., El Paso County, Hydrologic Unit 11020003, approximately 1 mi upstream from mouth of Little Fountain Creek below Fountain.

PERIOD OF RECORD.--April 1975 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)
OCT 31...	14:30	368	750	--	12.0	9.0	--
NOV 30...	15:45	171	880	7.6	5.5	10.4	--
DEC 21...	13:00	96	970	7.8	6.0	10.8	--
JAN 23...	13:20	115	1040	7.9	4.0	13.2	--
FEB 22...	12:45	113	985	7.9	8.0	10.1	35
MAR 22...	12:35	103	950	7.8	12.0	9.3	29
APR 26...	13:15	296	600	7.7	8.0	9.4	6.6
MAY 30...	13:10	288	475	8.0	17.0	10.1	--
JUN 28...	12:45	69	950	8.0	23.5	10.3	--
JUL 26...	13:25	363	630	7.9	21.5	8.2	7.2
AUG 23...	13:05	106	980	8.0	24.5	6.6	2.7
SEP 20...	13:15	78	1050	7.9	14.5	6.7	10

DATE	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 31...	276	0.24	1.7	3.00	780	K150	370
NOV 30...	140	1.30	2.4	3.70	1400	61	200
DEC 21...	74	2.50	3.4	3.80	1300	K25	72
JAN 23...	103	4.90	6.0	3.50	1300	K11	K50
FEB 22...	168	4.90	6.0	3.50	K15000	K2200	2200
MAR 22...	160	3.70	5.0	3.70	K16000	600	840
APR 26...	652	0.32	1.8	2.40	K16000	2100	3900
MAY 30...	206	0.08	0.8	2.00	5300	K80	K340
JUN 28...	46	0.07	0.8	4.20	420	K80	K120
JUL 26...	662	0.08	1.2	2.40	K14000	4400	K10000
AUG 23...	200	0.14	1.6	4.90	7700	860	820
SEP 20...	95	0.88	2.4	4.30	5500	400	800

K BASED ON NON-IDEAL COLONY COUNT.

07105920 LITTLE FOUNTAIN CREEK ABOVE KEATON RESERVOIR NEAR FORT CARSON, CO

LOCATION.--Lat 38°40'54", long 104°51'29", in NE¼SW¼ sec.2, T.16 S., R.67 W., El Paso County, Hydrologic Unit 11020003, on right bank 100 ft above Keaton Reservoir, 0.7 mi upstream from State Highway 115, and 4.8 mi southwest of Fort Carson.

DRAINAGE AREA.--11.0 mi².

PERIOD OF RECORD.--May 1978 to current year. Water-quality data available, May 1978 to September 1982.

REVISED RECORDS.--WDR CO-80-1: 1979.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 6,430 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 5-9, Dec. 2 to Mar. 17. Records good except for estimated daily discharges, Dec. 2 to Mar. 17, which are poor. No diversions above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--7 years, 6.30 ft³/s; 4,560 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 513 ft³/s, June 3, 1981, gage height, 3.72 ft, from floodmark, from rating curve extended above 70 ft³/s, on basis of slope-area measurement of peak flow; no flow, Aug. 22-28, Sept. 8-24, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 4	1345	*204	*2.85	Apr. 30	1930	88	2.17
Oct. 16	1315	27	1.29	May 23	0700	84	1.97
Oct. 27	2030	33	1.38	July 19	2400	70	1.97
Nov. 3	0800	38	1.45	July 25	1515	36	1.61
Apr. 5	1115	12	0.92	Aug. 3	2100	39	1.65
Apr. 19	0600	25	1.43	Sept.11	2300	22	1.27

Minimum daily discharge, 1.4 ft³/s, Feb. 2-3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	30	5.3	2.5	1.5	1.8	3.0	82	20	2.8	15	3.3
2	5.8	32	5.0	2.9	1.4	1.9	3.5	72	18	2.7	14	3.4
3	4.5	36	4.8	3.0	1.4	2.0	5.6	64	16	2.6	16	3.2
4	131	33	5.0	2.9	1.5	2.0	8.9	59	15	2.4	18	3.3
5	105	26	4.6	2.8	1.5	2.0	9.8	55	13	2.4	17	3.3
6	85	22	4.7	2.7	1.5	2.0	9.7	55	12	2.3	15	3.1
7	65	19	4.8	2.6	1.5	2.0	9.6	53	11	2.2	13	2.9
8	50	17	4.5	2.5	1.5	2.0	9.3	50	10	2.2	11	2.9
9	35	15	4.3	2.5	1.5	2.1	9.1	46	9.5	2.2	9.8	2.8
10	32	14	4.0	2.4	1.5	2.2	9.3	40	9.0	2.6	9.1	2.8
11	26	13	3.9	2.4	1.5	2.7	10	35	8.6	2.4	8.1	6.1
12	20	12	3.8	2.3	1.5	2.6	11	33	8.3	2.5	7.2	9.3
13	17	11	3.7	2.3	1.6	2.5	12	31	7.0	2.8	6.7	5.1
14	16	10	3.6	2.2	1.6	2.6	13	28	5.9	2.7	6.3	4.5
15	15	9.1	4.1	2.2	1.6	2.8	15	26	5.6	2.4	5.7	4.1
16	17	8.3	3.9	2.2	1.6	3.0	18	24	5.3	2.3	5.0	3.7
17	14	7.9	3.8	2.2	1.6	3.0	21	25	5.1	2.3	4.6	3.4
18	14	7.4	3.6	2.2	1.6	2.7	23	28	5.0	2.3	4.3	3.3
19	14	7.1	3.8	2.1	1.7	2.6	25	28	4.8	4.9	4.1	3.2
20	15	6.2	3.7	2.1	1.7	2.6	23	30	4.7	41	3.9	3.1
21	15	5.8	3.4	2.0	1.7	2.6	21	41	4.5	33	3.8	3.4
22	14	5.5	3.3	2.0	1.7	2.7	20	65	4.3	26	3.8	3.1
23	14	5.4	3.4	2.0	1.7	2.4	18	71	4.0	22	3.8	2.9
24	13	5.3	3.3	2.0	1.7	2.7	17	65	3.8	21	3.7	2.8
25	13	5.3	3.3	1.9	1.7	2.9	16	57	3.6	27	3.7	3.3
26	16	5.2	3.3	1.9	1.7	3.1	15	51	3.5	32	3.5	3.1
27	25	5.4	3.3	1.9	1.7	3.0	16	44	3.4	28	3.4	3.1
28	26	5.7	3.3	1.9	1.7	3.2	20	40	3.3	24	3.5	2.8
29	25	5.0	3.1	1.8	---	2.1	46	35	3.1	22	3.5	2.8
30	26	5.6	3.0	1.8	---	2.8	83	30	2.9	19	3.4	2.6
31	28	---	2.9	1.7	---	3.2	---	25	---	16	3.3	---
TOTAL	898.9	390.2	120.5	69.9	44.4	77.8	520.8	1388	230.2	360.0	233.2	106.7
MEAN	29.0	13.0	3.89	2.25	1.59	2.51	17.4	44.8	7.67	11.6	7.52	3.56
MAX	131	36	5.3	3.0	1.7	3.2	83	82	20	41	18	9.3
MIN	2.6	5.0	2.9	1.7	1.4	1.8	3.0	24	2.9	2.2	3.3	2.6
AC-FT	1780	774	239	139	88	154	1030	2750	457	714	463	212

CAL YR 1984 TOTAL 2574.19 MEAN 7.03 MAX 131 MIN .52 AC-FT 5110
WTR YR 1985 TOTAL 4440.6 MEAN 12.2 MAX 131 MIN 1.4 AC-FT 8810

NOTE.--NO GAGE-HEIGHT RECORD DEC. 2 TO MAR. 17.

07105924 WOMACK DITCH NEAR FORT CARSON, CO

LOCATION.--Lat 38°40'52", long 104°51'20", in NW¼SE¼ sec.2, T.16 S., R.67 W., El Paso County, Hydrologic Unit 11020003, on left side of diversion pipe, 300 ft downstream from Keaton Reservoir, 0.5 mi upstream from State Highway 115, and 4.7 mi southwest of Fort Carson.

PERIOD OF RECORD.--June 1978 to current year.

GAGE.--Water-stage recorder and Parshall flume. Elevation of gage is 6,400 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 2 to Feb. 15. Records good except for estimated daily discharges, which are fair. Gage is on controlled pipe diversion from Keaton Reservoir, which delivers appropriated water rights to Fort Carson and the City of Fountain. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--7 years, 1.24 ft^3/s; 898 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 4.8 ft^3/s, June 3, 4, 9-15, 1979; no flow, Mar. 21-24, Sept. 7, 8, 1980, Dec. 18-31, 1981, Jan. 8, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1.6 ft^3/s, many days; minimum daily discharge, 1.1 ft^3/s, Oct. 1-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.6	1.6	1.4	1.4	1.5	1.5	1.3	1.3	1.4	1.3	1.4
2	1.1	1.6	1.6	1.4	1.4	1.5	1.4	1.3	1.3	1.4	1.3	1.4
3	1.1	1.6	1.5	1.4	1.4	1.6	1.4	1.3	1.3	1.4	1.3	1.4
4	1.1	1.6	1.6	1.4	1.5	1.5	1.4	1.3	1.3	1.4	1.3	1.4
5	1.1	1.6	1.5	1.4	1.5	1.5	1.4	1.3	1.3	1.4	1.3	1.4
6	1.1	1.6	1.5	1.4	1.5	1.5	1.4	1.3	1.3	1.4	1.3	1.4
7	1.1	1.6	1.5	1.4	1.5	1.5	1.4	1.3	1.3	1.5	1.4	1.4
8	1.1	1.6	1.5	1.4	1.5	1.5	1.4	1.3	1.3	1.5	1.4	1.4
9	1.1	1.6	1.5	1.4	1.5	1.5	1.4	1.3	1.3	1.5	1.4	1.4
10	1.1	1.6	1.5	1.4	1.5	1.5	1.4	1.3	1.3	1.5	1.4	1.4
11	1.1	1.6	1.5	1.4	1.5	1.6	1.4	1.3	1.3	1.4	1.4	1.3
12	1.3	1.6	1.5	1.4	1.5	1.6	1.4	1.3	1.3	1.4	1.4	1.3
13	1.4	1.6	1.5	1.4	1.5	1.5	1.4	1.3	1.3	1.4	1.4	1.3
14	1.4	1.6	1.5	1.4	1.5	1.6	1.4	1.4	1.4	1.5	1.4	1.3
15	1.4	1.6	1.5	1.4	1.6	1.6	1.4	1.4	1.4	1.4	1.4	1.3
16	1.5	1.6	1.5	1.4	1.6	1.5	1.4	1.4	1.4	1.5	1.4	1.4
17	1.5	1.6	1.5	1.4	1.6	1.6	1.4	1.4	1.4	1.4	1.4	1.3
18	1.6	1.6	1.5	1.4	1.6	1.5	1.4	1.4	1.4	1.4	1.4	1.3
19	1.5	1.6	1.5	1.4	1.6	1.5	1.4	1.4	1.4	1.4	1.4	1.3
20	1.5	1.6	1.5	1.4	1.6	1.5	1.4	1.4	1.4	1.4	1.4	1.3
21	1.5	1.6	1.5	1.4	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.3
22	1.5	1.6	1.5	1.4	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.3
23	1.5	1.6	1.5	1.4	1.5	1.5	1.4	1.3	1.4	1.4	1.4	1.3
24	1.5	1.6	1.5	1.4	1.5	1.5	1.4	1.3	1.4	1.4	1.4	1.3
25	1.5	1.6	1.5	1.4	1.5	1.5	1.4	1.3	1.4	1.4	1.4	1.3
26	1.6	1.6	1.5	1.4	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.3
27	1.6	1.6	1.5	1.4	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.3
28	1.6	1.6	1.4	1.4	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.3
29	1.6	1.6	1.4	1.4	---	1.5	1.4	1.4	1.4	1.3	1.4	1.3
30	1.6	1.6	1.4	1.4	---	1.5	1.3	1.4	1.4	1.3	1.4	1.3
31	1.6	---	1.4	1.4	---	1.5	---	1.3	---	1.3	1.4	---
TOTAL	42.3	48.0	46.4	43.4	42.3	47.1	42.0	41.6	40.7	43.7	42.8	40.1
MEAN	1.36	1.60	1.50	1.40	1.51	1.52	1.40	1.34	1.36	1.41	1.38	1.34
MAX	1.6	1.6	1.6	1.4	1.6	1.6	1.5	1.4	1.4	1.5	1.4	1.4
MIN	1.1	1.6	1.4	1.4	1.4	1.5	1.3	1.3	1.3	1.3	1.3	1.3
AC-FT	84	95	92	86	84	93	83	83	81	87	85	80

CAL YR 1984	TOTAL	477.92	MEAN	1.31	MAX	2.4	MIN	.10	AC-FT	948
WTR YR 1985	TOTAL	520.4	MEAN	1.43	MAX	1.6	MIN	1.1	AC-FT	1030

NOTE.--NO GAGE-HEIGHT RECORD JAN. 2 TO FEB. 15.

07105928 LITTLE FOUNTAIN CREEK NEAR FORT CARSON, CO

LOCATION.--Lat 38°40'49", long 104°51'08", in SW¼SE¼ sec.2, T.16 S., R.67 W., El Paso County, Hydrologic Unit 11020003, on right bank 0.3 mi downstream from Keaton Reservoir, 0.4 mi upstream from State Highway 115, 1.2 mi upstream from Deadman Canyon and 4.8 mi southwest of Fort Carson.

DRAINAGE AREA.--11.8 km^2.

PERIOD OF RECORD.--Streamflow records, May 1978 to current year. Water-quality data available, May to September 1978.

REVISED RECORDS.--WDR CO-80-1: 1979.

GAGE.--Water-stage recorder. Elevation of gage is 6,360 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 30 to Feb. 19. Records good except estimated daily discharges, which are poor. Womack Ditch diverts about 5.0 ft^3/s from Keaton Reservoir upstream. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--7 years, 5.29 ft^3/s; 3,830 acre-ft per year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 224 ft^3/s, Oct. 4, 1984, gage height, 5.04 ft, from rating curve extended above 80 ft^3/s; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 224 ft^3/s at 1745 Oct. 4, gage height, 5.04 ft, from rating curve extended above 80 ft^3/s; minimum daily, 0.45 ft^3/s, Feb. 2-7, 11-13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	38	5.1	1.1	.47	.56	2.2	89	16	2.2	12	1.4
2	.97	36	4.6	1.5	.45	.60	3.1	78	15	2.0	11	1.6
3	.99	36	4.1	1.6	.45	.60	6.1	68	13	1.8	12	1.4
4	112	32	4.5	1.5	.45	.61	10	63	12	1.6	16	1.4
5	140	23	3.9	1.4	.45	.64	11	59	10	1.5	13	1.5
6	94	21	4.1	1.4	.45	.67	11	59	9.3	1.4	12	1.2
7	66	19	4.0	1.4	.45	.64	11	57	8.6	1.2	10	1.1
8	50	17	3.7	1.4	.47	.63	11	55	7.9	1.2	9.0	.95
9	40	16	3.6	1.3	.48	.61	11	50	7.5	1.2	8.1	.90
10	35	16	3.4	1.3	.47	.71	11	46	7.0	1.7	7.4	.80
11	26	15	3.4	1.2	.45	1.1	12	42	6.7	1.4	6.6	3.2
12	20	14	3.2	1.1	.45	1.0	13	39	6.6	1.3	5.9	7.2
13	19	13	2.9	1.0	.45	.91	13	36	6.3	1.9	5.3	3.8
14	18	12	2.7	.98	.46	.93	13	28	5.9	1.8	5.1	3.4
15	17	11	3.2	1.0	.48	.96	14	25	5.2	1.4	4.7	3.0
16	16	10	2.8	.96	.48	1.0	18	23	4.6	1.3	4.0	2.6
17	16	9.5	2.7	.89	.47	.89	21	22	4.7	1.2	3.6	2.4
18	16	8.8	2.4	.93	.47	1.1	24	26	4.6	1.2	3.5	2.3
19	16	8.7	2.5	.88	.47	1.1	26	26	4.3	3.0	3.3	2.3
20	17	8.2	2.4	.75	.47	1.1	23	28	4.0	36	2.9	2.4
21	17	7.3	2.2	.71	.47	1.1	21	42	3.6	29	2.6	2.4
22	17	7.1	1.9	.70	.46	1.3	19	69	3.4	24	2.5	2.1
23	17	6.8	2.0	.70	.48	1.2	17	70	3.1	20	2.3	2.0
24	16	6.6	1.8	.64	.50	1.3	16	64	3.0	19	2.3	2.0
25	16	6.3	1.8	.62	.54	1.6	16	56	2.9	24	2.2	2.5
26	17	6.2	1.8	.60	.49	2.0	15	47	2.9	29	2.1	2.1
27	22	4.7	1.8	.60	.53	2.0	15	38	2.8	26	1.9	2.1
28	29	6.1	1.9	.57	.59	2.3	18	33	2.6	21	1.9	2.0
29	29	5.5	1.7	.53	---	1.3	49	28	2.3	20	1.7	2.0
30	32	4.8	1.6	.50	---	1.8	95	23	2.2	17	1.6	1.8
31	34	---	1.5	.49	---	2.3	---	20	---	14	1.4	---
TOTAL	967.06	425.6	89.2	30.25	13.30	34.56	545.4	1409	188.0	309.3	177.9	65.85
MEAN	31.2	14.2	2.88	.98	.47	1.11	18.2	45.5	6.27	9.98	5.74	2.19
MAX	140	38	5.1	1.6	.59	2.3	95	89	16	36	16	7.2
MIN	.97	4.7	1.5	.49	.45	.56	2.2	20	2.2	1.2	1.4	.80
AC-FT	1920	844	177	60	26	69	1080	2790	373	613	353	131

CAL YR 1984 TOTAL 2336.05 MEAN 6.38 MAX 140 MIN .00 AC-FT 4630
WTR YR 1985 TOTAL 4255.42 MEAN 11.7 MAX 140 MIN .45 AC-FT 8440

07105940 LITTLE FOUNTAIN CREEK NEAR FOUNTAIN, CO

LOCATION.--Lat 38°38'33", long 104°44'49", in NE¼SW¼ sec.23, T.16 S., R.66 W., El Paso County, Hydrologic Unit 11020003, on Fort Carson Military Reservation, on right bank 300 ft downstream from Military Road No. 1, 0.4 mi upstream from mouth of Rock Creek, 3.8 mi southwest of Fountain.

DRAINAGE AREA.--26.9 mi².

PERIOD OF RECORD.--May 1978 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,560 ft above National Vertical Geodetic Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 16-17, Dec. 3-7, 14, 16, 18, 22, 25, Jan. 1-3, 10-17, 20-25, 29 to Feb. 9, 24, 27, Mar. 3-5, 13 and 29-30. Records good except for estimated daily discharges, which are poor. Diversions above station for irrigation, recreation, and municipal use, amount unknown. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--7 years, 6.15 ft³/s; 4,460 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,230 ft³/s, May 8, 1980, gage height, 7.55 ft, from rating curve extended above 260 ft³/s, maximum gage height, 8.22 ft, July 25, 1985; no flow many days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1110 ft³/s at 1500 July 25, gage height, 8.22 ft, from rating curve extended above 100 ft³/s on basis of computation of peak flow through a culvert; minimum daily discharge, 1.1 ft³/s, Feb. 2.

REVISIONS.--The maximum discharge for water year 1984 has been revised to 318 ft³/s at 2215, July 28, 1984, gage height, 6.60 ft. This figure supersedes that published in WDR-CO-84-1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	33	8.1	1.9	1.2	1.4	1.6	108	16	2.6	23	3.3
2	2.4	33	7.4	1.7	1.1	1.4	2.7	103	15	2.4	16	3.1
3	2.8	33	7.9	1.8	1.3	1.4	3.2	92	14	2.1	10	2.9
4	90	31	7.3	1.6	1.2	1.4	7.9	83	14	1.8	12	2.7
5	116	29	7.0	1.4	1.3	1.3	10	78	13	1.7	11	2.6
6	71	27	6.5	1.7	1.4	1.4	11	79	12	1.6	9.7	2.2
7	55	25	6.1	2.1	1.5	1.4	12	76	12	1.6	8.9	2.1
8	43	24	5.0	2.3	1.6	1.4	12	70	11	1.6	8.1	1.9
9	37	23	4.9	2.5	1.6	1.4	11	62	9.9	1.6	7.4	1.9
10	32	22	4.5	2.2	1.5	1.4	11	57	9.7	1.6	6.8	1.9
11	26	21	4.4	1.9	1.5	1.4	12	51	9.3	1.5	6.4	2.2
12	21	20	4.3	2.0	1.5	1.4	14	48	9.0	1.4	5.8	5.3
13	18	19	3.9	2.0	1.5	1.4	14	43	8.6	1.7	5.3	4.1
14	16	19	3.8	2.0	1.5	1.4	14	35	8.0	3.0	4.8	3.9
15	14	17	3.7	2.0	1.6	1.4	15	31	7.8	2.1	4.7	3.6
16	30	17	3.5	2.1	1.5	1.4	16	25	6.7	1.6	4.0	3.4
17	20	16	3.3	1.9	1.5	1.4	17	23	6.7	1.4	3.6	3.0
18	15	15	3.2	1.8	1.5	1.4	16	29	6.7	1.3	3.4	2.7
19	14	15	3.1	1.7	1.5	1.4	15	27	6.3	3.3	3.2	2.6
20	14	14	2.8	1.6	1.6	1.4	13	26	5.6	24	3.0	2.3
21	14	13	2.7	1.5	1.5	1.4	12	63	5.3	26	2.7	2.6
22	13	12	2.6	1.5	1.4	1.4	9.8	100	4.9	82	2.5	2.3
23	14	12	2.7	1.6	1.4	1.4	8.9	88	4.6	30	2.5	2.2
24	14	12	2.3	1.6	1.4	1.4	8.2	70	4.2	20	2.3	2.1
25	15	11	2.3	1.7	1.4	1.4	8.0	53	3.8	115	2.1	2.4
26	18	11	2.2	1.7	1.4	1.4	7.2	39	3.8	27	2.4	2.1
27	28	9.5	1.8	1.7	1.4	1.5	6.8	31	4.0	20	2.5	2.1
28	32	9.5	1.9	1.6	1.4	1.4	12	26	3.6	31	2.4	1.9
29	31	8.9	1.9	1.5	---	1.4	28	22	3.1	22	2.3	1.7
30	31	8.9	2.0	1.4	---	1.5	72	19	3.0	16	2.4	1.7
31	31	---	1.8	1.3	---	1.6	---	18	---	14	3.1	---
TOTAL	880.9	560.8	124.9	55.3	40.2	43.7	401.3	1675	241.6	462.9	184.3	78.8
MEAN	28.4	18.7	4.03	1.78	1.44	1.41	13.4	54.0	8.05	14.9	5.95	2.63
MAX	116	33	8.1	2.5	1.6	1.6	72	108	16	115	23	5.3
MIN	2.4	8.9	1.8	1.3	1.1	1.3	1.6	18	3.0	1.3	2.1	1.7
AC-FT	1750	1110	248	110	80	87	796	3320	479	918	366	156

CAL YR 1984	TOTAL	2923.02	MEAN	7.99	MAX	116	MIN	.19	AC-FT	5800
WTR YR 1985	TOTAL	4749.7	MEAN	13.0	MAX	116	MIN	1.1	AC-FT	9420

07105945 ROCK CREEK ABOVE FORT CARSON RESERVATION, CO

LOCATION.--Lat 38°42'27", long 104°50'46", in NW¼NW¼ sec.36, T.15 S., R.67 W., El Paso County, Hydrologic Unit 11020003, on right bank 20 ft upstream from county road bridge, 0.6 mi northwest of Rock Creek Park, 1.2 mi upstream from State Highway 115, and 3.2 mi southwest of Fort Carson.

DRAINAGE AREA.--6.79 mi^2.

PERIOD OF RECORD.--Streamflow records, May 1978 to current year. Water-quality data available, May to September 1978.

GAGE.--Water-stage recorder. Elevation of gage is 6,390 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 3-5, 14-16, 23-25, Dec. 31 to Jan. 6, Jan 9-15, 20, Jan. 30 to Feb. 14, Mar. 4-5 and Aug. 3-14. Records good except for periods of estimated daily discharges and those above 60 ft^3/s, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--7 years, 3.42 ft^3/s; 2,480 acre-ft per year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 276 ft^3/s, (revised), July 28, 1982, gage height, 4.73 ft, from rating curve extended above 60 ft^3/s; no flow many days.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 4	1930	*151	*3.56	May 12	1400	16	2.18
Oct. 19	2315	11	2.11	May 22	0800	55	2.56
Oct. 31	2230	30	2.38	July 19	2330	58	2.58
Apr. 19	0630	16	2.18	July 25	1545	44	2.49
Apr. 29	2215	74	2.76	Sept. 11	2345	21	2.31

Minimum daily discharge, 0.44 ft^3/s, Oct. 2.

REVISIONS.--The maximum discharge for water year 1982 has been revised to 276 ft^3/s at 2100, July 28, 1982, gage height 4.73 ft. This figure supersedes that published in WDR-CO-82-1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.49	27	3.4	1.4	1.0	1.8	2.7	53	12	1.5	14	1.3
2	.44	24	3.2	1.2	.95	1.8	3.6	41	10	1.4	12	1.4
3	.89	28	3.1	1.3	1.0	1.8	5.8	33	8.9	1.3	10	1.3
4	113	24	3.0	1.4	1.0	1.6	8.4	28	8.2	1.3	9.2	1.3
5	102	20	3.0	1.5	1.0	1.5	8.5	24	7.3	1.2	8.2	1.4
6	66	17	2.9	1.6	1.0	1.8	8.3	23	6.4	1.1	7.2	1.2
7	44	16	2.7	1.6	1.0	1.8	8.1	19	5.8	1.1	6.4	1.1
8	28	15	2.7	1.6	1.0	1.8	7.8	17	5.1	1.0	5.6	1.1
9	18	14	2.7	1.5	1.0	1.7	7.5	15	4.9	1.1	4.9	1.1
10	14	12	2.7	1.4	1.1	1.8	7.8	12	4.7	1.3	4.6	1.0
11	12	11	2.7	1.4	1.0	2.0	8.2	9.9	4.5	1.0	3.8	4.5
12	9.3	9.8	2.6	1.4	1.0	2.0	8.8	12	4.2	1.0	3.4	7.2
13	8.0	9.3	2.4	1.4	1.0	2.0	9.2	15	3.9	1.3	2.9	2.8
14	7.7	8.8	2.1	1.4	1.0	2.0	9.2	13	3.6	1.4	2.8	2.3
15	7.4	8.0	1.9	1.4	1.1	2.0	9.6	13	3.5	1.2	2.7	2.1
16	7.2	7.4	1.9	1.4	1.3	2.0	11	11	3.2	1.0	2.6	1.8
17	8.3	7.1	2.0	1.5	1.5	2.0	13	11	3.1	.94	2.5	1.7
18	9.8	6.5	1.8	1.5	1.6	2.0	15	14	3.0	.94	2.4	1.6
19	10	6.3	1.9	1.4	1.6	2.0	16	16	2.9	4.2	2.3	1.5
20	11	5.8	1.9	1.5	1.7	2.0	14	17	2.6	15	2.1	1.6
21	10	5.4	1.8	1.5	1.7	2.0	12	35	2.4	12	2.0	1.7
22	9.8	5.2	1.8	1.5	1.6	2.1	11	53	2.3	11	2.0	1.4
23	9.8	5.0	1.9	1.5	1.7	2.0	9.7	49	2.1	11	1.9	1.4
24	9.4	4.8	1.8	1.5	2.1	2.1	8.3	41	2.0	9.7	1.8	1.4
25	10	4.6	1.7	1.4	1.7	2.2	8.3	34	1.9	23	1.8	1.6
26	14	4.3	1.8	1.4	1.7	2.4	7.8	29	2.0	28	1.7	1.3
27	20	3.8	1.7	1.3	2.1	2.5	8.0	24	1.9	19	1.6	1.2
28	20	4.2	1.7	1.3	1.8	2.7	11	22	1.8	17	1.6	1.1
29	18	3.9	1.7	1.3	---	2.6	43	18	1.7	19	1.5	1.1
30	20	3.5	1.7	1.3	---	2.6	66	16	1.6	18	1.4	1.1
31	24	---	1.6	1.2	---	2.7	---	14	---	16	1.3	---
TOTAL	642.52	321.7	69.8	44.0	37.25	63.3	367.6	731.9	127.5	223.98	128.2	52.6
MEAN	20.7	10.7	2.25	1.42	1.33	2.04	12.3	23.6	4.25	7.23	4.14	1.75
MAX	113	28	3.4	1.6	2.1	2.7	66	53	12	28	14	7.2
MIN	.44	3.5	1.6	1.2	.95	1.5	2.7	9.9	1.6	.94	1.3	1.0
AC-FT	1270	638	138	87	74	126	729	1450	253	444	254	104

CAL YR 1984 TOTAL 1705.05 MEAN 4.66 MAX 113 MIN .37 AC-FT 3380
WTR YR 1985 TOTAL 2810.35 MEAN 7.70 MAX 113 MIN .44 AC-FT 5570

07105950 ROCK CREEK NEAR FORT CARSON, CO

LOCATION.--Lat 38°41'49", long 104°49'39", in SW¼SW¼ sec.31, T.15 S., R.66 W., Hydrologic Unit 11020003, on left bank at Fort Carson Girl Scout Camp, 0.2 mi downstream from bridge on State Highway 115 and 2.9 mi southwest of Fort Carson.

DRAINAGE AREA.--7.79 mi².

PERIOD OF RECORD.--Streamflow records, May 1978 to current year. Water quality data available, May 1978 to September 1981.

GAGE.--Water-stage recorder. Elevation of gage is 6,150 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 16 to Nov. 5, Dec. 9-10, Jan. 3-5, Jan. 11-22, Jan. 31 to Feb. 14, Feb. 26, and May 19-21. Records good except for periods of estimated daily discharges, Oct. 16 to Nov. 5, Dec. 9-10, and May 19-21, which are fair, and period of estimated daily discharges Jan. 3-5, Jan. 11-22, Jan. 31 to Feb.14, Feb.26, and discharges above 50 ft³/s, which are poor. Some diversions above station for irrigation and other uses, amounts unknown. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--7 years, 2.68 ft³/s; 1,940 acre-ft per year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 353 ft³/s, July 28, 1982, gage height, 6.09 ft, from floodmark, from rating curve extended above 50 ft³/s; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge recorded, 118 ft³/s at 1930 Oct. 4 from rating curve extended above 50 ft³/s, gage height, 4.71 ft; minimum daily, 0.01 ft³/s, Oct. 1-2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	25	1.8	.78	.45	1.1	2.0	40	10	.49	12	.22
2	.01	24	1.7	.76	.40	.89	3.1	31	9.4	.49	9.7	.22
3	.02	26	1.4	.82	.40	.75	5.8	25	8.8	.45	8.8	.20
4	77	22	1.7	.92	.40	.82	8.0	22	7.8	.39	8.4	.19
5	83	20	1.6	1.0	.40	.82	8.5	20	7.3	.33	6.7	.17
6	47	17	1.6	1.1	.40	.87	8.1	19	6.5	.28	5.5	.15
7	31	16	1.7	1.1	.40	.91	7.9	17	5.5	.25	4.5	.12
8	23	15	1.8	1.1	.42	.91	7.7	15	4.8	.22	3.7	.11
9	19	13	1.9	1.0	.45	.91	7.6	12	4.3	.19	3.4	.10
10	16	11	2.0	.86	.45	.94	7.4	12	4.0	.15	3.1	.08
11	12	9.4	2.1	.80	.43	1.2	7.6	10	3.1	.13	2.7	.33
12	11	8.1	2.0	.75	.42	1.4	8.0	11	2.8	.10	2.2	5.7
13	9.5	7.9	1.5	.85	.42	1.3	8.0	13	2.4	.10	1.6	1.3
14	8.9	7.6	1.4	.91	.45	1.3	7.5	11	2.3	.09	1.6	.47
15	8.5	7.3	1.7	.85	.50	1.4	7.8	11	2.1	.10	1.4	.30
16	8.4	6.6	1.6	.80	.60	1.4	8.7	10	1.9	.12	1.2	.28
17	9.6	6.3	1.5	.91	.80	1.4	9.7	10	2.3	.16	1.2	.28
18	11	5.8	1.2	.85	.91	1.4	11	12	1.3	.19	1.1	.25
19	12	5.2	1.1	.75	.86	1.4	12	14	.99	.29	.96	.20
20	12	4.7	1.3	.65	.95	1.4	12	15	.89	8.1	.86	.19
21	12	4.2	1.3	.65	.93	1.4	10	30	.76	9.4	.78	.19
22	11	3.8	1.1	.70	.95	1.5	9.0	47	.65	7.4	.68	.19
23	11	3.7	1.1	.74	1.0	1.4	8.0	42	.58	8.1	.64	.18
24	11	3.5	1.0	.76	1.0	1.5	7.3	34	.55	6.6	.58	.19
25	12	3.5	1.1	.80	1.1	1.5	7.3	27	.51	21	.51	.19
26	15	2.6	.96	.80	1.0	1.6	7.1	23	.51	30	.46	.19
27	21	2.9	1.0	.76	1.1	1.6	6.9	19	.47	19	.40	.19
28	21	2.9	1.1	.70	1.1	1.8	8.8	17	.64	16	.36	.17
29	20	2.4	.98	.60	---	1.5	28	15	.54	18	.31	.16
30	21	2.3	1.0	.55	---	1.7	50	14	.53	17	.27	.14
31	23	---	.96	.50	---	1.8	---	12	---	13	.24	---
TOTAL	576.94	289.7	44.20	25.12	18.69	39.82	300.8	610	94.22	178.12	85.85	12.65
MEAN	18.6	9.66	1.43	.81	.67	1.28	10.0	19.7	3.14	5.75	2.77	.42
MAX	83	26	2.1	1.1	1.1	1.8	50	47	10	30	12	5.7
MIN	.01	2.3	.96	.50	.40	.75	2.0	10	.47	.09	.24	.08
AC-FT	1140	575	88	50	37	79	597	1210	187	353	170	25

CAL YR 1984 TOTAL 1302.47 MEAN 3.56 MAX 83 MIN .00 AC-FT 2580
WTR YR 1985 TOTAL 2276.11 MEAN 6.24 MAX 83 MIN .01 AC-FT 4510

07105960 ROCK CREEK NEAR FOUNTAIN, CO

LOCATION.--Lat 38°39'16", long 104°44'48", in NE¼SW¼ sec.14, T.16 S., R.66 W., El Paso County, Hydrologic Unit 11020003, on left bank at edge of Military Road No. 1 on Fort Carson Military Reservation, 1.1 mi upstream from mouth at Little Fountain Creek and 3.2 mi southwest of Fountain.

DRAINAGE AREA.--16.9 mi^2.

PERIOD OF RECORD.--Streamflow records, May 1978 to current year. Water-quality data available, May 1978 to September 1979.

GAGE.--Water-stage recorder. Elevation of gage is 5,600 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good except those above 50 ft^3/s, which are poor. Diversions above this station for irrigation and recreation, amounts unknown. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--7 years, 3.10 ft^3/s; 2,250 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 139 ft^3/s, July 29, 1982, gage height, 4.19 ft, from rating curve extended above 50 ft^3/s; minimum daily, 0.01 ft^3/s, Aug. 31 to Sept. 12, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 120 ft^3/s at 2230 Oct. 4, gage height, 4.09 ft from rating curve extended above 50 ft^3/s; minimum daily, 0.78 ft^3/s, Sept. 6-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	25	5.2	1.7	1.5	1.5	1.9	63	13	.95	16	.84
2	1.0	24	5.0	1.7	1.5	1.5	2.3	50	11	.94	15	.82
3	1.0	26	4.8	1.6	1.5	1.5	4.3	35	10	.93	13	.82
4	62	25	4.6	1.6	1.5	1.4	8.0	30	9.5	.90	11	.82
5	94	23	4.5	1.7	1.5	1.4	9.7	27	8.6	.90	7.9	.82
6	50	22	4.4	1.8	1.5	1.4	9.6	28	7.4	.89	6.4	.78
7	31	21	4.0	1.8	1.5	1.4	9.4	26	6.0	.86	5.2	.78
8	24	20	3.9	1.8	1.5	1.4	9.2	23	4.9	.85	4.3	.78
9	21	20	3.8	1.8	1.4	1.4	9.2	20	4.5	.85	3.6	.82
10	18	18	3.6	1.7	1.4	1.5	9.6	19	4.2	.85	3.4	.82
11	14	16	3.0	1.7	1.4	1.5	9.5	17	2.9	.82	2.9	.87
12	12	15	2.7	1.7	1.4	1.6	9.6	17	2.6	.84	2.4	.92
13	11	14	2.6	1.8	1.3	1.7	9.1	20	2.1	.87	2.1	.90
14	12	14	2.1	1.8	1.3	1.7	8.0	16	1.8	.88	1.9	.88
15	13	12	2.4	1.8	1.3	1.7	8.7	14	1.6	.89	1.8	.86
16	10	11	2.3	1.8	1.4	1.7	9.3	12	1.5	.90	1.7	.86
17	17	10	2.3	1.8	1.4	1.6	10	12	1.4	.88	1.5	.84
18	17	9.8	2.1	1.8	1.3	1.6	11	17	1.4	.86	1.4	.86
19	18	9.4	2.1	1.7	1.4	1.6	13	19	1.3	1.3	1.3	.89
20	17	9.0	2.1	1.7	1.4	1.6	12	22	1.3	4.9	1.2	.90
21	16	8.4	2.1	1.7	1.4	1.6	9.7	34	1.2	5.2	1.1	.96
22	16	8.0	1.9	1.7	1.4	1.6	9.4	50	1.2	11	1.0	.96
23	17	7.7	1.9	1.7	1.4	1.5	8.6	46	1.1	10	.97	.90
24	17	7.2	1.8	1.7	1.4	1.5	7.9	41	1.1	6.6	.92	.92
25	18	6.9	1.7	1.7	1.5	1.4	8.0	37	1.1	19	.92	.96
26	19	6.6	1.8	1.7	1.5	1.4	8.9	31	1.1	29	.87	.92
27	22	6.3	1.7	1.7	1.5	1.4	7.4	28	1.0	23	.87	.92
28	22	6.0	1.8	1.7	1.5	1.5	8.6	26	1.0	31	.82	.92
29	22	5.8	1.8	1.8	---	1.7	22	22	1.0	23	.82	.92
30	23	5.5	1.7	1.7	---	1.7	64	19	.95	19	.82	.92
31	24	---	1.8	1.6	---	1.8	---	16	---	17	.82	---
TOTAL	660.0	412.6	87.5	53.5	40.0	47.8	327.9	837	107.75	215.86	113.93	26.18
MEAN	21.3	13.8	2.82	1.73	1.43	1.54	10.9	27.0	3.59	6.96	3.68	.87
MAX	94	26	5.2	1.8	1.5	1.8	64	63	13	31	16	.96
MIN	1.0	5.5	1.7	1.6	1.3	1.4	1.9	12	.95	.82	.82	.78
AC-FT	1310	818	174	106	79	95	650	1660	214	428	226	52

CAL YR 1984	TOTAL	1601.66	MEAN	4.38	MAX	94	MIN	.46	AC-FT	3180
WTR YR 1985	TOTAL	2930.02	MEAN	8.03	MAX	94	MIN	.78	AC-FT	5810

07106000 FOUNTAIN CREEK NEAR FOUNTAIN, CO

LOCATION.--Lat 38°36'08", long 104°40'11", in SW¼NE¼ Sec.4, T.17 S., R.65 W., El Paso County, Hydrologic Unit 11020003, on right bank, 365 ft upstream from Denver & Rio Grande Railroad bridge, 0.75 mi downstream from Little Fountain Creek and 5.5 mi south of Fountain.

DRAINAGE AREA.--681 mi^2.

PERIOD OF RECORD.--September 1938 to March 1, 1940, monthly records only, March 2, 1940 to September 1954, at site 200 ft downstream at different datum, July 2, 1985 to Sept. 30, 1985.

GAGE.--Water-stage recorder. Elevation of gage is 5,355 ft above National Geodetic Vertical Datum of 1929, from topographic map. Sept. 18, 1938 to Mar. 1, 1940, nonrecording gage, and Mar. 2, 1940 to Sept. 30, 1954, recording gage, both at different datum and at site 200 ft downstream.

REMARKS.--Estimated daily discharges: July 20, 25-26. Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by storage reservoirs, power developments, diversions for irrigation, municipal use, and return flows from irrigation and sewage effluent discharges. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--16 years (water years 1938-54) 54.2 ft^3/s, 39,270 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,100 ft^3/s, May 28, 1940, gage height, 9.19 ft, at different datum, from rating curve extended above 3,000 ft^3/s, on basis of slope-area measurement of peak flow; no flow Sept. 24, 30, 1939.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 14.4 ft, at different datum, May 30, 1935, but was probably exceeded by the flood of June 1965.

EXTREMES FOR CURRENT PERIOD JULY TO SEPTEMBER.--Maximum discharge, 7,020 ft^3/s, time unknown, July 20, gage height, 10.38 ft, from floodmark, on basis of slope-area measurement of peak flow; minimum daily, 30 ft^3/s, July 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1										---	673	78
2										30	564	258
3										42	361	80
4										55	448	75
5										58	309	71
6										51	273	74
7										56	227	64
8										54	211	61
9										65	246	71
10										118	310	56
11										55	231	457
12										48	191	781
13										60	141	188
14										75	453	176
15										60	161	168
16										66	132	152
17										68	109	138
18										107	114	113
19										628	114	105
20										2220	144	113
21										896	112	129
22										608	107	121
23										569	104	119
24										549	117	89
25										400	113	134
26										350	102	101
27										318	89	100
28										1200	98	93
29										704	111	106
30										1260	91	109
31										1190	60	---
TOTAL										---	6516	4380
MEAN										---	210	146
MAX										---	673	781
MIN										---	60	56

07106300 FOUNTAIN CREEK NEAR PINON, CO

LOCATION.--Lat 38°26'50", long 104°35'28", in NE¼NE¼ sec.31, T.18 S., R.64 W., Pueblo County, Hydrologic Unit 11020002, near left bank on downstream side of county road bridge, 1.2 mi northeast of Pinon, and 3.2 mi upstream from Steele Hollow Creek.

DRAINAGE AREA.--849 mi^2.

PERIOD OF RECORD.--April 1973 to current year.

REVISED RECORDS.--WDR CO-80-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 5,005 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Apr. 23, 1976, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 22-25, Dec. 31 to Jan. 2, Feb. 2-15, May 5-7, Sept. 30. Records good except for periods of estimated daily discharge and discharges above about 4,500 ft^3/s, which are poor. Natural flow of stream affected by storage reservoirs, power developments, transbasin and transmountain diversions municipal use, diversions above station for irrigation of about 10,000 acres and municipal use, and return flow from irrigated areas.

AVERAGE DISCHARGE.--12 years, 99.9 ft^3/s; 72,380 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,200 ft^3/s, May 8, 1980, gage height, 7.05 ft, from rating curve extended above 7,300 ft^3/s; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,960 ft^3/s at 0815 July 20, gage height, 7.53 ft, from floodmark; minimum daily, 1.0 ft^3/s, July 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	122	449	158	150	110	161	220	897	241	17	305	19
2	102	422	182	150	100	158	250	801	262	9.0	522	269
3	111	443	162	156	100	167	271	776	248	3.0	285	130
4	1290	439	155	185	100	148	234	700	345	1.0	378	96
5	1060	421	155	184	100	150	234	690	248	16	247	50
6	646	412	147	187	105	170	218	900	234	29	245	39
7	494	402	155	185	110	161	235	1100	213	11	214	30
8	462	405	161	179	120	166	228	612	206	12	190	18
9	447	338	165	173	140	175	243	530	199	13	172	50
10	417	330	165	162	130	178	259	502	362	83	256	16
11	392	298	176	168	120	194	236	418	260	45	181	24
12	348	298	166	161	130	242	250	565	220	19	185	1360
13	345	290	158	165	140	233	238	704	213	16	146	198
14	460	276	140	160	145	199	238	496	192	46	418	184
15	473	262	148	165	150	174	249	486	185	35	161	149
16	370	241	140	167	160	157	243	451	179	39	120	126
17	539	248	147	160	161	167	250	378	179	7.2	102	117
18	524	247	141	175	163	161	245	540	179	15	98	114
19	428	239	136	173	167	159	263	468	173	167	83	101
20	403	225	147	143	167	151	245	576	233	1900	95	88
21	391	210	140	151	180	151	246	766	146	852	90	153
22	391	213	135	153	168	140	265	874	122	459	86	148
23	407	208	140	157	192	129	416	736	107	630	67	157
24	485	212	135	147	158	129	285	596	96	402	97	87
25	393	210	160	152	175	133	330	501	80	540	87	150
26	386	199	167	139	161	143	458	471	72	1130	80	110
27	442	192	173	141	147	140	287	433	60	594	72	81
28	477	185	183	144	161	179	304	392	57	989	64	64
29	434	185	167	138	---	239	580	330	59	2120	57	72
30	456	177	158	126	---	240	962	306	38	716	45	95
31	457	---	156	116	---	248	---	248	---	395	39	---
TOTAL	14152	8676	4818	4912	3960	5342	8982	18243	5408	11310.2	5187	4295
MEAN	457	289	155	158	141	172	299	588	180	365	167	143
MAX	1290	449	183	187	192	248	962	1100	362	2120	522	1360
MIN	102	177	135	116	100	129	218	248	38	1.0	39	16
AC-FT	28070	17210	9560	9740	7850	10600	17820	36180	10730	22430	10290	8520

CAL YR 1984 TOTAL 67166.45 MEAN 184 MAX 1290 MIN .00 AC-FT 133200
WTR YR 1985 TOTAL 95285.2 MEAN 261 MAX 2120 MIN 1.0 AC-FT 189000

07106500 FOUNTAIN CREEK AT PUEBLO, CO

LOCATION.--Lat 38°17'16", long 104°36'02", in SE¼SW¼ sec.19, T.20 S., R.64 W., Pueblo County, Hydrologic Unit 11020003, on left bank at upstream side of bridge on U.S. Highway 50 at Pueblo and 2.6 mi upstream from mouth.

DRAINAGE AREA.--926 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1922 to September 1925, October 1940 to September 1965, February 1971 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WDR CO-79-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,705 ft above National Geodetic Vertical Datum of 1929, from topographic map. See WSP 1711 or 1731 for history of changes prior to Oct. 1, 1940, and WSP 1921 for changes prior to Sept. 30, 1965. Feb. 1, 1971, to Sept. 30, 1976, water-stage recorder at site 1.4 mi upstream at datum 4,725.30 ft, National Geodetic Vertical Datum of 1929 (unadjusted).

REMARKS.--Estimated daily discharges: Jan. 1-3, 11-24, 30-31, Feb. 1-15, May 10-16. Records good except for periods of estimated daily discharge, which are poor. Natural flow of stream affected by storage reservoirs, power developments, transbasin and transmountain diversions for municipal use, diversions for irrigation of about 14,000 acres above station and municipal use, and return flow from irrigated areas.

AVERAGE DISCHARGE.--42 years (water years 1923-25, 1941-65, 1972-85), 69.7 ft³/s; 50,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 47,000 ft³/s June 17, 1965, gage height, 19.0 ft, from floodmarks, site and datum then in use, from rating curve extended above 400 ft³/s, on basis of contracted-opening measurement of peak flow; no flow at times many years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1903, that of June 17, 1965. Flood of June 4, 1921, reached a discharge of 34,000 ft³/s, by slope-area measurement. Flood of May 30, 1935, reached a discharge of 35,000 ft³/s, by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,950 ft³/s at 1145 July 20, gage height, 5.82 ft; minimum daily, 7.6 ft³/s, July 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	118	507	190	200	140	192	185	771	205	19	378	40
2	116	483	210	190	130	206	176	683	224	17	636	209
3	98	504	200	210	130	206	176	688	210	12	403	123
4	859	447	190	230	130	186	212	549	283	7.6	491	98
5	858	375	170	230	130	217	212	678	256	7.7	325	74
6	702	385	180	240	140	208	185	806	303	10	289	61
7	545	343	190	230	150	190	221	946	295	8.4	253	44
8	510	385	200	210	160	190	254	782	323	8.9	223	27
9	576	340	180	200	170	180	242	765	325	12	177	25
10	528	264	190	190	160	180	266	600	471	59	425	30
11	483	295	210	180	150	192	212	450	302	51	248	57
12	404	295	190	170	160	267	254	600	254	23	212	1120
13	368	306	199	160	170	265	266	750	230	23	175	225
14	434	276	180	170	175	209	212	600	203	41	666	119
15	446	260	180	170	180	180	185	500	176	73	260	124
16	411	309	169	170	160	160	194	410	149	43	191	130
17	469	302	173	180	156	154	176	461	140	19	134	126
18	685	288	160	190	192	160	150	600	149	19	104	122
19	595	274	182	180	189	154	203	539	122	110	113	95
20	569	240	172	180	216	134	158	681	128	1670	119	76
21	559	230	182	170	231	128	254	729	117	1100	133	115
22	480	220	169	170	219	122	278	857	100	506	127	118
23	577	210	187	165	259	122	396	622	81	458	111	137
24	653	220	175	160	231	122	277	604	70	434	119	115
25	540	230	209	160	187	116	310	640	62	377	127	155
26	620	240	229	151	197	167	541	712	66	747	119	123
27	625	230	232	184	182	254	350	558	52	554	102	99
28	551	220	233	182	181	194	302	415	42	530	92	84
29	530	210	234	183	---	230	532	350	32	1480	99	99
30	471	200	209	170	---	266	900	228	23	985	93	120
31	510	---	209	155	---	212	---	229	---	469	67	---
TOTAL	15890	9088	5983	5730	4875	5763	8279	18803	5393	9873.6	7011	4090
MEAN	513	303	193	185	174	186	276	607	180	319	226	136
MAX	859	507	234	240	259	267	900	946	471	1670	666	1120
MIN	98	200	160	151	130	116	150	228	23	7.6	67	25
AC-FT	31520	18030	11870	11370	9670	11430	16420	37300	10700	19580	13910	8110

CAL YR 1984 TOTAL 76935.16 MEAN 210 MAX 1240 MIN .86 AC-FT 152600
WTR YR 1985 TOTAL 100778.6 MEAN 276 MAX 1670 MIN 7.6 AC-FT 199900

07106500 FOUNTAIN CREEK AT PUEBLO, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)
OCT 31...	15:35	471	870	--	12.5	10.2	--
NOV 30...	16:40	190	1090	8.1	5.0	12.4	--
DEC 21...	14:00	200	1180	8.3	5.0	12.0	--
JAN 23...	14:50	170	1120	8.2	3.0	13.0	--
FEB 22...	14:10	274	1120	8.2	9.0	9.9	8.6
MAR 22...	14:00	134	1170	8.3	12.0	10.0	4.6
APR 26...	14:35	605	740	8.0	8.5	9.4	4.6
MAY 30...	14:35	228	740	8.3	19.0	7.8	--
JUN 28...	14:05	46	1200	8.5	28.5	7.4	--
JUL 26...	14:50	68	790	8.1	22.5	8.2	3.6
AUG 23...	14:30	122	1210	8.4	28.0	7.0	1.4
SEP 20...	14:40	73	1320	8.3	15.0	8.5	2.0

DATE	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 31...	460	0.01	1.9	3.30	--	--	--
NOV 30...	208	0.35	1.7	5.50	--	--	--
DEC 21...	165	0.19	1.5	5.00	--	--	--
JAN 23...	347	1.20	2.6	5.00	780	K7	--
FEB 22...	396	0.33	2.9	5.80	3100	K81	180
MAR 22...	298	0.05	2.2	5.80	K14000	440	310
APR 26...	2660	0.03	1.4	3.90	>8000	980	K5600
MAY 30...	250	0.07	1.0	2.90	7700	170	720
JUN 28...	50	0.05	0.5	3.50	540	K52	330
JUL 26...	2600	0.03	0.5	2.60	K15000	4500	K24000
AUG 23...	290	0.04	0.9	4.00	2400	500	730
SEP 20...	232	0.11	--	4.10	K1600	220	990

K BASED ON NON-IDEAL COLONY COUNT.

07108900 ST. CHARLES RIVER AT VINELAND, CO

LOCATION.--Lat 38°14'44", long 104°29'09", in NE¼SW¼ sec.6, T.21 S., R.63 W., Pueblo County, Hydrologic Unit 11020002, on right bank at right downstream end of downstream bridge on U.S. Highway 50C, 1.6 mi west of Vineland, and 3.0 mi upstream from mouth.

DRAINAGE AREA.--474 mi^2.

PERIOD OF RECORD.--October 1978 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,581.58 ft above National Geodetic Vertical Datum of 1929, (Colorado Division of Highways benchmark).

REMARKS.--Estimated daily discharges: Oct. 1-2, 6-15, Jan. 31 to Feb. 8. Records good except for periods of estimated daily discharges, which are poor, and winter period, which is fair. Natural flow of stream affected by diversions above station for irrigation of about 8,500 acres, and for industrial uses, and return flow from land irrigated by Bessemer Ditch. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--7 years, 45.0 ft^3/s; 32,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,560 ft^3/s, Aug. 11, 1982, gage height, 12.70 ft, from rating curve extended above 1,800 ft^3/s; minimum daily, 0.25 ft^3/s, Apr. 25, 1979.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1901, 56,000 ft^3/s, at a site 5.0 mi upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 990 ft^3/s, at 2230 July 22, gage height, 5.48 ft; minimum daily, 9.8 ft^3/s, Sept. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	23	16	14	12	16	17	431	119	25	53	13
2	14	23	16	14	11	17	17	263	118	23	50	14
3	15	22	16	13	12	15	18	153	117	21	47	14
4	20	20	16	15	13	14	19	112	64	24	48	13
5	26	21	15	15	13	15	19	102	55	28	47	14
6	35	21	16	16	13	15	40	154	50	29	43	14
7	40	21	16	17	13	14	30	196	51	27	35	14
8	35	20	18	16	14	14	19	101	49	25	27	13
9	32	20	19	15	14	14	36	89	47	22	23	12
10	34	19	18	15	15	14	44	76	54	19	26	12
11	35	19	17	15	14	13	39	60	53	17	39	12
12	37	18	16	14	14	19	33	48	45	15	39	11
13	34	19	15	15	14	17	31	62	41	16	23	11
14	35	19	13	15	16	16	27	61	37	18	18	10
15	45	18	15	16	16	15	30	44	38	17	26	11
16	35	18	14	17	17	14	27	34	39	16	22	11
17	30	18	14	16	17	14	39	33	39	15	20	13
18	27	18	14	16	17	14	42	34	38	17	19	11
19	27	17	15	16	16	13	46	43	37	21	25	11
20	28	17	15	14	15	14	38	45	36	38	20	9.8
21	28	16	15	14	15	14	31	108	35	187	16	10
22	26	16	14	15	14	14	33	546	32	201	17	10
23	28	16	15	16	15	15	27	467	30	173	16	11
24	28	16	13	15	14	14	20	401	31	76	16	11
25	28	16	13	16	14	13	18	348	31	67	15	12
26	27	16	14	16	15	14	25	318	28	66	15	11
27	27	16	15	16	15	13	26	277	26	61	13	12
28	27	16	16	16	16	14	25	218	26	65	12	13
29	27	17	14	16	---	15	132	194	27	73	12	15
30	25	16	14	13	---	19	448	181	26	71	12	14
31	23	---	14	13	---	19	---	167	---	57	12	---
TOTAL	892	552	471	470	404	461	1396	5366	1419	1530	806	362.8
MEAN	28.8	18.4	15.2	15.2	14.4	14.9	46.5	173	47.3	49.4	26.0	12.1
MAX	45	23	19	17	17	19	448	546	119	201	53	15
MIN	14	16	13	13	11	13	17	33	26	15	12	9.8
AC-FT	1770	1090	934	932	801	914	2770	10640	2810	3030	1600	720

CAL YR 1984 TOTAL 19677.4 MEAN 53.8 MAX 1090 MIN 7.6 AC-FT 39030
WTR YR 1985 TOTAL 14129.8 MEAN 38.7 MAX 546 MIN 9.8 AC-FT 28030

07109500 ARKANSAS RIVER NEAR AVONDALE, CO

LOCATION.--Lat 38°14'53", long 104°23'55", in NE¼SW¼ sec.1, T.21 S., R.63 W., Pueblo County, Hydrologic Unit 11020002, on right bank 15 ft downstream from bridge on Sixmile Rd., 0.3 mi upstream from Sixmile Creek, and 2.6 mi west of Avondale.

DRAINAGE AREA.--6,327 mi^2.

PERIOD OF RECORD.--Streamflow records, May 1939 to September 1951, February 1965 to current year. Water-quality data available, April to October 1976, April 1979 to September 1980.

REVISED RECORDS.--WSP 1087: 1942. WSP 1311: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,509.53 ft above National Geodetic Vertical Datum of 1929. Prior to February 1965, at site 550 ft downstream at datum 1.37 ft, lower.

REMARKS.--Estimated daily discharges: Dec. 13-14. Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals, diversions for irrigation of about 123,000 acres and municipal use, and return flow from irrigated areas. Flow partly regulated by Pueblo Reservoir (station 07099350) since Jan. 9, 1974. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--20 years (water years 1940-51, 1966-73), 867 ft^3/s; 628,100 acre-ft/yr, prior to completion of Pueblo Dam: 11 years (water years 1975-85), 969 ft^3/s; 702,000 acre-ft/yr, subsequent to completion of Pueblo Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 50,000 ft^3/s, June 18, 1965, gage height, 9.77 ft, from rating curve extended above 6,700 ft^3/s, on basis of records for station near Pueblo and indirect measurements of peak flow on Fountain Creek at Pueblo, Chico Creek near North Avondale, and Arkansas River near North Avondale; minimum daily, 50 ft^3/s, Apr. 2, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,000 ft^3/s at 1200 July 21, gage height, 5.55 ft; minimum daily, 309 ft^3/s, Dec. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	745	1890	420	368	858	948	1110	3630	3810	2160	2210	504
2	746	1860	435	350	837	999	1130	2990	3120	2140	2010	480
3	749	1670	430	433	877	994	1410	2760	2990	1990	2070	492
4	1400	1540	430	584	873	989	1970	2730	3230	1890	2310	474
5	2660	1590	415	769	877	972	1920	2840	3480	1860	2020	501
6	2320	1600	400	764	864	909	1800	3330	3250	1860	1710	485
7	1620	1640	395	776	883	803	1980	4110	3460	1900	1300	539
8	1390	1550	415	765	902	789	2000	3920	5040	2000	1150	516
9	1460	1460	405	777	991	789	2070	3350	5430	2060	1070	482
10	1520	1320	390	732	1020	905	2250	3310	5670	2080	1140	463
11	1350	1310	383	719	1020	932	2420	3260	5600	2020	1410	585
12	1240	1320	390	714	1170	1020	1700	3290	5700	1930	1280	1500
13	1180	1370	370	706	1290	959	2560	3280	5730	1860	1300	931
14	1240	1370	350	714	1380	887	2490	2890	5830	1730	1610	815
15	1470	797	346	718	1420	877	2340	2620	5990	1720	1480	779
16	1370	570	346	722	1250	859	1610	2140	4580	1710	1300	813
17	1630	535	354	719	1220	854	1610	1580	4420	1650	1040	909
18	2180	518	350	712	1210	991	1750	1760	4560	1650	905	904
19	2090	522	335	720	1230	1010	1980	2210	4370	1870	871	882
20	2270	506	338	704	1250	1030	2070	2800	3910	3390	1010	860
21	2220	484	331	695	1300	1080	1880	2960	3700	5490	1110	773
22	1890	483	324	703	1290	1150	1650	4330	3270	4860	1160	706
23	1790	471	325	752	1290	1190	1510	3880	3240	4350	1140	568
24	1730	472	328	975	1280	1170	1400	3230	3300	4850	1160	624
25	1620	462	309	1020	1250	1130	1340	3090	3200	3720	1200	649
26	1610	469	324	1120	1130	1120	1520	3150	2950	3620	1120	568
27	1690	461	357	1140	972	1090	1430	3240	2900	2900	1110	587
28	1790	437	372	1130	961	1010	1380	3520	2580	2630	1020	617
29	1830	432	375	1030	---	1100	1680	3870	2150	4270	966	631
30	1860	427	366	936	---	1110	3170	4200	2080	3380	736	646
31	1890	---	360	892	---	1140	---	4280	---	2770	588	---
TOTAL	50550	29536	11468	23859	30895	30806	55130	98550	119540	82310	40506	20283
MEAN	1631	985	370	770	1103	994	1838	3179	3985	2655	1307	676
MAX	2660	1890	435	1140	1420	1190	3170	4330	5990	5490	2310	1500
MIN	745	427	309	350	837	789	1110	1580	2080	1650	588	463
AC-FT	100300	58580	22750	47320	61280	61100	109400	195500	237100	163300	80340	40230

CAL YR 1984 TOTAL 602187 MEAN 1645 MAX 5580 MIN 265 AC-FT 1194000
WTR YR 1985 TOTAL 593433 MEAN 1626 MAX 5990 MIN 309 AC-FT 1177000

07116500 HUERFANO RIVER NEAR BOONE, CO

LOCATION.--Lat 38°13'30", long 104°15'37", in NE¼NE¼ sec.18, T.21 S., R.61 W., Pueblo County, Hydrologic Unit 11020006, at right upstream end of bridge on U.S. Highway 50, 0.8 mi upstream from mouth, and 1.6 mi south of Boone.

DRAINAGE AREA.--1,875 mi².

PERIOD OF RECORD.--January 1922 to September 1925 (monthly and annual discharge only, published in WSP 1311 as near Nepesta), October 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,443.75 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 13-15, Dec. 26 to Jan. 5, Jan. 9 to Feb. 15. Records good except for winter period of estimated daily discharge, which are poor. Natural flow of stream affected by diversions for irrigation of about 48,000 acres, and return flow from irrigated areas. Several observations of water temperature and specific conductance were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--9 years (water years 1923-25, 1980-85), 42.0 ft³/s; 30,430 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,400 ft³/s, Aug. 1, 1923, gage height, 9.4 ft, datum then in use, from rating curve extended above 1,200 ft³/s, on the basis of slope-area measurement of peak flow; no flow many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 880 ft³/s at 2330 May 6, gage height, 8.87 ft; maximum gage height, 9.73 ft at 0145, Feb. 15, (backwater from ice); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	33	38	45	30	33	11	15	113	.01	30	.00
2	12	26	37	40	30	30	13	13	63	.27	26	.00
3	9.0	30	44	50	30	23	15	8.5	60	.03	23	.00
4	19	24	34	70	30	15	14	6.5	56	.02	26	.00
5	24	19	30	90	30	18	14	5.2	56	.53	19	.00
6	32	19	34	80	32	20	11	128	54	.46	17	.00
7	33	17	31	71	35	22	10	224	38	.00	13	.00
8	31	21	30	57	38	18	12	173	18	.00	12	.00
9	33	16	16	55	40	14	13	196	23	.00	12	.00
10	35	18	18	50	37	15	16	180	59	.00	10	.00
11	38	19	25	45	40	14	11	157	52	.00	14	.00
12	40	18	23	40	45	19	7.6	130	43	.00	11	.21
13	35	19	20	40	50	23	5.2	149	28	.00	7.1	.47
14	35	23	18	45	55	15	4.7	109	17	19	7.8	2.9
15	70	22	19	50	65	10	4.5	80	11	5.2	8.6	4.2
16	116	24	21	50	75	8.0	4.2	75	4.2	20	7.0	5.8
17	115	22	22	50	80	6.0	3.6	77	2.2	18	3.4	7.0
18	94	19	16	50	70	5.2	4.1	64	4.0	25	3.9	1.6
19	73	18	18	50	60	4.7	3.1	81	2.7	54	4.9	.44
20	59	18	19	47	58	4.5	3.0	54	1.9	26	3.6	.64
21	49	21	31	45	46	4.5	2.6	124	1.2	58	1.3	1.3
22	59	18	27	45	35	4.3	3.1	260	2.8	47	.85	1.1
23	56	17	27	50	40	4.2	5.8	239	7.4	29	.80	1.0
24	59	20	36	50	46	4.8	12	190	3.4	18	.93	.92
25	61	17	40	50	38	4.6	13	171	.41	16	1.4	2.5
26	76	18	50	47	40	5.4	23	161	.08	30	.95	1.4
27	40	17	60	45	38	23	19	150	.00	16	.80	1.0
28	33	18	70	42	29	19	13	142	.00	18	.47	2.1
29	30	23	65	40	---	16	12	121	.00	58	.25	13
30	31	36	60	35	---	13	14	109	.00	46	.02	17
31	36	---	50	35	---	9.8	---	103	---	48	.00	---
TOTAL	1447.0	630	1029	1559	1242	426.0	297.5	3695.2	721.29	552.52	267.07	64.58
MEAN	46.7	21.0	33.2	50.3	44.4	13.7	9.92	119	24.0	17.8	8.62	2.15
MAX	116	36	70	90	80	33	23	260	113	58	30	17
MIN	9.0	16	16	35	29	4.2	2.6	5.2	.00	.00	.00	.00
AC-FT	2870	1250	2040	3090	2460	845	590	7330	1430	1100	530	128

CAL YR 1984 TOTAL 19677.64 MEAN 53.8 MAX 677 MIN .00 AC-FT 39030
WTR YR 1985 TOTAL 11931.16 MEAN 32.7 MAX 260 MIN .00 AC-FT 23670

07117000 ARKANSAS RIVER NEAR NEPESTA, CO

LOCATION.--Lat 38°11'03", long 104°10'22", in SW¼SW¼ sec.25, T.21 S., R.61 W., Pueblo County, Hydrologic Unit 110200005, on right bank 0.7 mi upstream from headgate of Oxford Farmers Co. canal, 1.9 mi northwest of Nepesta, 2.7 mi upstream from Kramer Creek, and 6.6 mi downstream from Huerfano River.

DRAINAGE AREA.--9,345 mi^2, of which 54 mi^2 is probably noncontributing.

PERIOD OF RECORD.--April to October 1903, April to November 1912, October 1913 to September 1984. Monthly discharge only for some periods, published in WSP 1311. Records originally published for October 1933 to June 1936 did not include diversions to Oxford Farmers Co. canal, but monthly figures only for this period have been adjusted for diversion, and published in WSP 1311.

Records for river below Oxford Farmers Co. canal (diversion to canal not included), published as "at Nepesta" September 1897 to October 1903 (irrigation seasons only), April to October 1904, June 1906 to September 1908 (irrigation seasons only), September 1909 to December 1910, February to September 1911 (gage heights and discharge measurements only), October 1913 to November 1912, March to August 1913 (discharge measurements only), October 1913 to September 1936. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1341: Drainage area, WDR CO-79-1: 1965.

GAGE.--Water-stage recorder. Elevation of gage is 4,385 ft, from topographic map. Prior to June 5, 1921, nonrecording gages or water-stage recorders at various sites within 4.5 mi upstream and 3.0 mi downstream at different datums. June 5, 1921, to Apr. 4, 1966, water-stage recorders at sites on river or river and canal within 0.7 mi downstream at various datums.

REMARKS.--Estimated daily discharges: 1982 Water Year, Dec. 25-28, Dec. 30 to Jan. 2, Jan. 7 to Feb. 23, May 25, 26. 1983 Water Year, Dec. 29 to Jan. 9, June 21-25, July 19-26. 1984 Water Year, Dec. 13 to Jan. 9, Jan. 14 to Feb. 1, Mar. 30 to Apr. 8, Apr. 13, July 4-10, July 27 to Aug. 10. Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals, diversions for irrigation of about 230,000 acres, and return flow from irrigated areas. Flow partly regulated by Pueblo Resevoir (station 07099350) since Jan. 9, 1974.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--60 Years (water years 1914-73), 684 ft^3/s, 495,600 acre-ft/yr, prior to completion of Pueblo Dam; 8 years (water years 1975-82), 670 ft^3/s, 485,400 acre-ft/yr, 9 years (water years 1975-83), 715 ft^3/s, 518,000 acre-ft/yr, 10 years (water years 1975-84), 767 ft^3/s, 555,700 acre-ft/yr, subsequent to completion of Pueblo Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 180,000 ft^3/s, June 4, 1921, gage height not determined, by slope-area measurement of peak flow at a point 8 mi upstream; no flow at times in 1902, 1910, 1931, and 1934.

EXTREMES FOR WATER YEAR 1982.--Maximum discharge, 10,100 ft^3/s at 1400 July 29, gage height, 7.85 ft ;minimum daily, 90 ft^3/s, Feb. 18-20.

EXTREMES FOR WATER YEAR 1983.--Maximum discharge, 6,890 ft^3/s at 0400 June 28, gage height, 8.21 ft, minimum daily, 74 ft^3/s, Mar. 25.

EXTREMES FOR WATER YEAR 1984.--Maximum discharge, 13,600 ft^3/s at 1600 Aug. 22, gage height, 9.45 ft, minimum daily, 118 ft^3/s, Feb. 26.

07117000 ARKANSAS RIVER NEAR NEPESTA, CO--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	200	510	340	300	390	367	362	400	1750	2230	1800	1330
2	218	552	335	295	390	378	315	356	1410	2250	1240	1110
3	227	594	335	290	390	389	406	330	3010	2270	1170	1030
4	222	660	335	290	370	367	372	372	2640	1980	1180	924
5	204	642	320	315	360	345	300	350	1190	1730	1730	790
6	196	636	305	310	360	372	330	455	870	1640	1500	790
7	209	630	300	310	360	350	433	618	1010	1600	2680	885
8	204	594	290	330	380	345	444	672	1620	1500	2680	956
9	209	558	275	350	200	340	422	564	1340	1640	1380	924
10	250	534	280	360	120	325	394	504	1360	1840	1100	964
11	260	528	285	360	130	315	362	428	1480	1730	3380	885
12	255	510	290	370	170	285	367	558	2100	1580	1600	1100
13	240	510	295	340	140	255	335	825	2010	1290	1740	1640
14	236	488	295	380	160	275	310	678	1540	1140	1490	3090
15	245	510	300	400	180	222	310	546	1650	1290	1420	2160
16	270	378	305	400	110	295	330	488	1980	1130	2400	1600
17	345	310	290	420	100	340	340	450	1460	1190	1440	1260
18	438	285	290	410	90	384	340	672	1380	1340	1300	1140
19	504	310	290	410	90	433	350	482	2500	1220	1400	1160
20	534	335	300	400	90	433	345	320	3700	1140	2050	1410
21	558	340	310	390	110	460	362	250	1560	892	6720	1740
22	510	320	345	390	120	472	356	236	1010	769	4660	1330
23	428	310	330	380	130	455	330	285	2660	818	3590	1260
24	411	305	310	380	285	378	305	350	2580	885	1340	1030
25	450	310	285	380	335	330	280	540	2520	762	1650	956
26	455	320	290	390	340	350	305	940	3540	703	1860	948
27	472	335	285	400	350	350	330	1030	3160	1990	1520	924
28	482	340	285	400	372	340	416	1090	2310	3900	1380	1020
29	472	345	280	390	---	345	450	1170	1550	5800	1340	1140
30	477	340	295	400	---	367	428	1520	1530	7600	1600	1180
31	499	---	305	390	---	372	---	2050	---	8160	1450	---
TOTAL	10680	13339	9375	11330	6622	11034	10729	19529	58420	64009	61790	36676
MEAN	345	445	302	365	237	356	358	630	1947	2065	1993	1223
MAX	558	660	345	420	390	472	450	2050	3700	8160	6720	3090
MIN	196	285	275	290	90	222	280	236	870	703	1100	790
AC-FT	21180	26460	18600	22470	13130	21890	21280	38740	115900	127000	122600	72750

CAL YR 1981 TOTAL 159158 MEAN 436 MAX 5080 MIN 76 AC-FT 315700
WTR YR 1982 TOTAL 313533 MEAN 859 MAX 8160 MIN 90 AC-FT 621900

07117000 ARKANSAS RIVER NEAR NEPESTA, CO--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	956	394	394	360	422	109	330	908	2640	5560	1160	1010
2	900	384	384	360	428	115	362	1010	2670	5520	1060	1110
3	948	472	389	360	422	125	389	1140	2540	5450	2180	722
4	924	540	378	360	406	133	450	940	2580	5220	1600	696
5	797	540	384	360	394	196	422	642	2190	4660	1650	1040
6	832	522	384	365	394	236	345	636	3540	4860	1950	1030
7	870	534	367	365	406	310	384	636	3660	5000	2730	916
8	848	534	345	365	406	406	362	642	3520	4940	2410	948
9	848	534	356	365	433	378	494	672	3540	4940	1920	630
10	848	540	367	378	438	367	540	748	3570	4900	1540	466
11	832	552	367	400	433	335	516	1080	3770	2600	1360	466
12	790	582	356	406	416	340	522	1160	3830	2540	1360	460
13	783	642	356	416	394	367	630	1140	4130	2730	1280	416
14	825	648	356	400	406	367	660	1080	4160	2670	2420	438
15	840	624	340	406	400	345	678	783	3630	2310	1520	494
16	703	433	340	400	325	546	690	690	2800	1820	1340	438
17	600	411	350	400	155	280	654	790	2800	1110	1240	400
18	660	394	356	394	151	160	636	878	3690	722	1320	372
19	666	389	362	422	133	106	642	900	3740	730	1380	345
20	660	389	362	455	109	79	636	1590	3860	820	1410	362
21	588	411	362	438	115	81	722	1580	4500	1400	1090	389
22	564	400	372	416	122	76	1020	989	6000	2100	1300	416
23	558	389	372	372	136	118	972	832	4000	3200	1280	428
24	522	389	362	389	136	94	797	956	3500	3400	1180	450
25	504	389	362	406	144	74	534	924	1500	2800	1140	438
26	499	389	345	428	140	83	804	840	5220	1650	1140	389
27	477	433	384	428	140	129	1060	940	5960	1450	1240	330
28	466	433	367	438	129	86	855	1180	5840	1600	1110	315
29	460	428	360	450	---	109	790	1680	5840	1100	1210	305
30	394	422	355	433	---	227	940	2120	5720	892	1250	310
31	394	---	355	422	---	378	---	2580	---	1490	1280	---
TOTAL	21556	14141	11289	12357	8133	6755	18836	32686	114940	90184	46050	16529
MEAN	695	471	364	399	290	218	628	1054	3831	2909	1485	551
MAX	956	648	394	455	438	546	1060	2580	6000	5560	2730	1110
MIN	394	384	340	360	109	74	330	636	1500	722	1060	305
AC-FT	42760	28050	22390	24510	16130	13400	37360	64830	228000	178900	91340	32790

CAL YR 1982 TOTAL 327125 MEAN 896 MAX 8160 MIN 90 AC-FT 648900
WTR YR 1983 TOTAL 393456 MEAN 1078 MAX 6000 MIN 74 AC-FT 780400

07117000 ARKANSAS RIVER NEAR NEPESTA, CO--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	305	444	367	410	500	140	660	1850	3630	3040	2050	1960
2	522	450	378	425	494	136	675	3920	4310	3690	1940	1700
3	648	494	416	420	477	125	605	6440	4570	5680	1990	1330
4	648	482	438	410	488	125	525	7220	4470	5370	1900	1140
5	690	466	422	430	528	144	505	4860	4070	3290	1410	972
6	696	460	389	460	534	240	590	892	3140	2680	2020	980
7	666	455	400	470	510	460	530	840	2250	2100	1600	1180
8	636	460	394	460	460	482	445	630	1960	1700	1590	1480
9	618	444	422	440	455	472	1260	494	2310	1570	1720	972
10	576	438	428	428	438	499	1910	594	1640	1660	1710	678
11	499	455	411	438	433	472	900	755	1240	2560	1360	648
12	466	472	394	444	428	444	1570	855	1730	3800	797	546
13	433	472	394	444	422	428	4000	1030	3190	2030	797	325
14	438	466	378	465	444	389	1030	1390	2070	1530	678	270
15	384	522	362	390	450	384	570	1340	1100	1390	932	372
16	400	389	340	350	438	540	438	1640	2310	1890	1100	411
17	438	345	330	350	428	528	482	2490	3600	1450	1210	472
18	444	350	345	340	411	504	998	2470	3800	1240	1530	546
19	394	394	360	320	411	636	892	2310	3140	1070	3160	504
20	356	406	360	320	406	564	1150	2120	2540	998	3950	477
21	356	367	345	330	416	552	1540	1730	2310	998	4380	345
22	384	356	335	340	305	534	1120	1680	2370	1780	8770	335
23	400	325	335	340	191	582	755	2840	2730	1620	2940	460
24	362	315	345	355	160	672	832	3800	3040	1140	3400	433
25	378	305	355	380	140	636	1040	5720	3110	1060	4970	460
26	400	305	360	400	118	755	948	6520	3110	1950	5760	477
27	406	472	355	410	122	855	964	6180	3690	2730	3720	455
28	411	455	350	410	129	900	870	6180	3690	1360	3270	433
29	400	378	350	410	122	848	797	5410	3350	1340	3240	494
30	411	350	360	430	---	815	948	4340	3040	1720	3060	450
31	422	---	380	480	---	700	---	3630	---	1470	2560	---
TOTAL	14587	12492	11598	12499	10858	15561	29549	92170	87510	65906	79514	21305
MEAN	471	416	374	403	374	502	985	2973	2917	2126	2565	710
MAX	696	522	438	480	534	900	4000	7220	4570	5680	8770	1960
MIN	305	305	330	320	118	125	438	494	1100	998	678	270
AC-FT	28930	24780	23000	24790	21540	30870	58610	182800	173600	130700	157700	42260

CAL YR 1983 TOTAL 385147 MEAN 1055 MAX 6000 MIN 74 AC-FT 763900
WTR YR 1984 TOTAL 453549 MEAN 1239 MAX 8770 MIN 118 AC-FT 899600

07119500 APISHAPA RIVER NEAR FOWLER, CO

LOCATION.--Lat 38°05'28", long 103°58'52", in SE¼NW¼ sec.35, T.22 S., R.59 W., Otero County, Hydrologic Unit 11020007, near right bank on downstream side of county highway bridge, 3.5 mi southeast of Fowler, and 5.4 mi upstream from mouth.

DRAINAGE AREA.--1,125 mi^2.

PERIOD OF RECORD.--Streamflow records, April 1922 to September 1925, May 1939 to current year. Monthly discharge only for some periods, published in WSP 1311. Water-quality data available, November 1963 to September 1967, January to April 1969.

REVISED RECORDS.--WSP 957: 1939, 1941. WSP 1117: Drainage area. WSP 1241: 1923(M). WRD Colo. 1974: 1973(M).

GAGE.--Water-stage recorder. Datum of gage is 4,317.05 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 29, 1923, at site 3 mi downstream at different datum. Aug. 29, 1923, to Sept. 30, 1925, at present site at different datum.

REMARKS.--No estimated daily discharges: Records good. Waste water from Oxford Farmers Co. and Rocky Ford Highline canals enters river above station. Diversions above station for irrigation of about 4,700 acres. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--49 years, 29.5 ft^3/s; 21,370 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 83,000 ft^3/s, Aug. 22, 1923, by slope-area measurement 2 mi upstream from present site, caused by failure of Apishapa Dam 31 mi upstream; no flow Feb. 5, 1951.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3000 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
July 29	0100	*689	*3.31				

Minimum daily, 2.8 ft^3/s, Feb. 23-25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	26	5.0	4.7	3.7	3.0	31	18	73	18	22	7.2
2	25	24	5.1	4.6	3.6	3.0	12	30	61	18	17	7.2
3	20	29	4.7	4.7	3.5	3.2	23	34	63	17	15	6.9
4	63	33	4.7	4.7	3.4	3.1	31	23	44	17	16	6.6
5	45	22	4.7	4.7	3.3	3.2	27	42	24	20	15	6.6
6	9.4	29	4.7	4.7	3.2	138	17	217	24	19	18	6.9
7	9.0	28	4.7	4.6	3.0	67	22	149	49	23	18	6.6
8	15	25	4.7	4.4	3.1	5.2	28	110	61	24	18	6.6
9	26	13	4.7	4.7	3.3	3.9	32	128	40	18	18	6.6
10	24	8.1	4.7	4.3	3.3	3.4	38	110	33	19	15	6.9
11	21	6.5	4.7	4.4	3.0	3.4	31	79	23	21	11	7.8
12	25	6.0	4.4	4.4	3.0	3.7	26	22	21	21	9.8	8.1
13	41	6.1	4.5	4.3	3.0	3.4	37	75	23	12	11	17
14	43	6.3	4.3	4.4	3.1	3.2	33	95	23	11	13	16
15	22	8.1	4.4	4.4	3.0	3.2	19	79	10	33	16	19
16	7.5	9.1	4.4	4.4	3.0	3.2	11	65	8.4	25	12	22
17	6.9	6.4	4.5	4.3	3.0	3.2	8.4	77	11	22	10	17
18	6.9	5.0	4.5	4.2	3.0	10	9.4	58	12	28	7.8	22
19	22	5.0	4.4	4.2	3.0	20	13	33	14	32	8.1	23
20	35	4.9	4.5	3.9	2.9	18	21	85	15	76	8.7	25
21	33	4.9	4.6	3.9	2.9	33	7.5	30	14	114	7.5	12
22	32	5.2	4.5	3.9	2.9	52	42	31	14	65	8.1	7.5
23	32	5.2	4.6	3.8	2.8	60	77	27	12	32	7.2	13
24	39	5.2	4.7	3.9	2.8	51	74	84	13	8.4	7.8	20
25	39	4.7	4.7	3.9	2.8	32	23	82	16	8.4	8.1	27
26	40	4.7	4.8	3.9	3.0	22	37	64	16	60	8.7	27
27	40	4.7	4.7	3.9	3.0	22	21	58	17	28	9.8	22
28	44	5.0	4.6	3.9	3.0	28	21	49	16	62	8.4	27
29	44	5.2	4.6	3.9	---	29	34	61	16	257	10	28
30	43	4.9	4.5	3.7	---	41	25	57	16	122	8.4	24
31	42	---	4.5	3.7	---	37	---	51	---	49	8.7	---
TOTAL	916.7	350.2	143.1	131.4	86.6	711.3	831.3	2123	782.4	1279.8	372.1	452.5
MEAN	29.6	11.7	4.62	4.24	3.09	22.9	27.7	68.5	26.1	41.3	12.0	15.1
MAX	63	33	5.1	4.7	3.7	138	77	217	73	257	22	28
MIN	6.9	4.7	4.3	3.7	2.8	3.0	7.5	18	8.4	8.4	7.2	6.6
AC-FT	1820	695	284	261	172	1410	1650	4210	1550	2540	738	898

CAL YR 1984 TOTAL 8575.1 MEAN 23.4 MAX 712 MIN 2.0 AC-FT 17010
WTR YR 1985 TOTAL 8180.4 MEAN 22.4 MAX 257 MIN 2.8 AC-FT 16230

07119700 ARKANSAS RIVER AT CATLIN DAM, NEAR FOWLER, CO

LOCATION.--Lat 38°07'33", long 103°54'41", in NW¼NW¼ sec.21, T.22 S., R.58 W., Otero County, Hydrologic Unit 11020005, 600 ft downstream from gage on Catlin Canal, on right bank 2.2 mi downstream from diversion dam for Catlin Canal, 2.3 mi downstream from Apishapa River, and 6.0 mi east of Fowler.

DRAINAGE AREA.--10,901 mi^2, of which 54 mi^2 is probably noncontributing.

PERIOD OF RECORD.--October 1964 to September 1984.

GAGE.--Water-stage recorders on river and on Catlin Canal. Datum of river gage is 4,245.92 ft above National Geodetic Vertical Datum of 1929. Datum of canal gage is 4,257.87 ft above National Geodetic Vertical Datum of 1929. Prior to May 13, 1971, river gage at site 2.2 mi upstream at datum 24.08 ft, higher, and canal gage at site 1.7 mi upstream at datum 3.26 ft, higher.

REMARKS.--Records good. Discharge computed by combining discharge of river below canal with that of Catlin Canal. Natural flow of stream affected by transmountain diversions, storage reservoirs, ground-water withdrawals, diversions for irrigation, and return flow from irrigated areas. Flow partly regulated by Pueblo Reservoir (station 07099350) since Jan. 9, 1974.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--9 years (water years 1965-73), 636 ft^3/s, 460,800 acre-ft/yr, prior to completion of Pueblo Dam; 8 years (water years 1975-82), 613 ft^3/s; 444,100 acre-ft/yr; 9 years (water years 1975-83), 666 ft^3/s; 482,500 acre-ft/yr; 10 years (water years 1975-84), 711 ft^3/s; 515,100 acre-ft/yr, subsequent to completion of Pueblo Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 43,200 ft^3/s, June 18, 1965, gage height, 7.95 ft, site and datum then in use, from rating curve extended above 13,000 ft^3/s; on basis of flow-over-dam computation of peak flow; minimum daily, 30 ft^3/s, Sept. 12, 1974, Aug. 14, 1977.

EXTREMES FOR WATER YEAR 1982.--Maximum discharge, 12,700 ft^3/s at 2300 Aug. 21, gage height, not determined; minimum daily, 128 ft^3/s, Feb. 20.

EXTREMES FOR WATER YEAR 1983.--Maximum discharge, 6,460 ft^3/s at 1330 June 28, gage height, not determined; minimum daily, 90 ft^3/s, Mar. 24.

EXTREMES FOR WATER YEAR 1984.--Maximum discharge, 7,920 ft^3/s at 1300 Aug. 22, gage height, not determined; minimum daily, 160 ft^3/s, Feb. 27, Mar. 1, 2, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	195	420	356	400	345	459	388	354	1740	2560	2760	1250
2	202	460	330	372	330	435	346	318	1290	2460	1390	1050
3	192	512	335	305	307	417	327	259	2290	2250	1240	1030
4	220	570	296	288	335	453	384	283	3230	2430	880	927
5	176	608	296	361	385	388	280	360	1620	1610	1200	801
6	192	582	284	378	350	411	250	367	1080	1770	1340	734
7	192	578	268	292	320	400	276	519	932	1680	1300	772
8	192	570	260	195	330	383	360	652	1720	1560	2500	926
9	195	570	256	300	330	383	364	677	1720	1560	1310	897
10	209	560	264	378	383	394	311	613	1560	1770	988	900
11	233	544	268	320	504	383	276	531	1640	1720	1960	829
12	227	519	272	320	453	366	265	499	2280	1740	1660	1060
13	236	519	276	288	372	356	260	740	2560	1310	1330	1690
14	228	488	280	288	356	340	244	990	1900	969	1530	2710
15	225	520	288	356	340	290	226	683	1940	977	1200	2280
16	226	480	292	417	232	268	246	669	2260	986	2360	1660
17	249	388	292	366	199	283	256	545	1860	831	1480	1310
18	313	372	288	405	155	316	253	588	1730	969	1290	1180
19	386	378	296	465	142	392	261	773	2340	1220	1280	1140
20	435	411	305	453	128	420	263	385	3820	1120	1630	1460
21	460	429	320	429	131	430	258	270	2430	986	7040	1880
22	478	394	372	388	138	448	274	204	1140	703	6640	1510
23	405	356	335	280	135	458	274	233	2280	650	5030	1270
24	375	340	192	325	219	402	253	334	3030	717	1790	1200
25	400	340	232	405	345	345	227	320	2360	703	1790	992
26	402	335	296	405	405	342	220	779	3540	539	1930	992
27	403	340	300	441	405	374	243	962	3540	1310	1590	906
28	418	340	276	378	447	369	280	1040	2610	3880	1380	802
29	413	345	232	350	---	365	368	1120	2230	3960	1140	1080
30	388	361	208	330	---	456	381	1290	1050	7550	1520	1040
31	416	---	340	330	---	384	---	1600	---	6920	1400	---
TOTAL	9281	13629	8905	11008	8521	11910	8614	18957	63722	59410	61878	36278
MEAN	299	454	287	355	304	384	287	612	2124	1916	1996	1209
MAX	478	608	372	465	504	459	388	1600	3820	7550	7040	2710
MIN	176	335	192	195	128	268	220	204	932	539	880	734
AC-FT	18410	27030	17660	21830	16900	23620	17090	37600	126400	117800	122700	71960

CAL YR 1981 TOTAL 150038 MEAN 411 MAX 4030 MIN 68 AC-FT 297600
WTR YR 1982 TOTAL 312113 MEAN 855 MAX 7550 MIN 128 AC-FT 619100

07119700 ARKANSAS RIVER AT CATLIN DAM, NEAR FOWLER, CO--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1110	374	423	440	510	125	244	1050	2790	5320	1580	1100
2	887	374	429	470	441	130	270	849	3060	5450	953	1030
3	971	356	435	530	420	140	358	1110	2870	5510	1500	980
4	1060	470	417	590	441	145	343	1130	3080	4950	1730	744
5	881	480	417	593	405	215	552	708	2770	4100	1420	816
6	711	472	435	593	411	265	360	434	3330	4230	1370	938
7	911	487	441	586	417	350	325	294	3780	4480	3130	914
8	899	499	447	544	435	490	327	350	3930	4590	2790	852
9	900	517	459	579	430	400	334	507	3960	4670	2570	724
10	922	527	453	429	470	417	445	566	3870	4620	2020	490
11	924	552	429	441	470	411	430	857	4000	3420	1520	422
12	895	503	435	453	460	334	398	1080	4450	2430	1300	427
13	920	614	447	463	430	372	510	1270	4590	2670	1280	409
14	901	624	453	429	450	394	627	1280	4590	2700	2460	396
15	989	820	435	435	440	385	610	1160	4150	2350	1980	396
16	945	526	400	447	350	635	674	796	2930	1640	1600	417
17	696	400	405	435	240	476	799	734	2750	1120	1330	377
18	627	388	410	441	200	314	604	744	3180	648	1290	350
19	763	400	430	447	160	229	522	902	3670	480	1410	345
20	662	378	447	465	120	186	542	1290	3860	481	1380	332
21	605	388	447	478	120	181	575	2540	4360	723	1330	355
22	562	400	453	435	130	176	1120	1480	4940	1600	1140	375
23	565	394	453	429	140	160	1110	1040	4970	2720	1240	417
24	539	405	491	411	100	90	940	942	3650	3030	1190	421
25	512	388	441	429	120	120	486	1000	1320	2440	1000	396
26	492	394	411	423	115	135	389	1060	5040	1450	964	385
27	473	405	429	429	170	145	908	996	5640	1230	1200	319
28	467	417	453	405	150	143	774	1210	6180	1530	1190	280
29	461	447	430	480	---	186	651	1600	5800	1180	1070	269
30	423	435	430	520	---	211	599	2180	5610	930	1100	270
31	381	---	405	510	---	240	---	2290	---	1170	1370	---
TOTAL	23054	13834	13490	14759	8745	8200	16826	33449	119120	83862	47407	15946
MEAN	744	461	435	476	312	265	561	1079	3971	2705	1529	532
MAX	1110	820	491	593	510	635	1120	2540	6180	5510	3130	1100
MIN	381	356	400	405	100	90	244	294	1320	480	953	269
AC-FT	45730	27440	26760	29270	17350	16260	33370	66350	236300	166300	94030	31630

CAL YR 1982 TOTAL 330676 MEAN 906 MAX 7550 MIN 128 AC-FT 655900
WTR YR 1983 TOTAL 398692 MEAN 1092 MAX 6180 MIN 90 AC-FT 790800

07119700 ARKANSAS RIVER AT CATLIN DAM, NEAR FOWLER, CO--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	277	466	390	400	570	160	568	1210	3310	2740	1950	1710
2	302	471	450	420	593	160	532	2070	3470	2930	1760	1500
3	518	471	450	480	498	162	409	3310	3700	3950	1820	1180
4	595	572	460	460	537	162	380	3940	3730	3560	1720	1020
5	594	488	470	480	600	160	365	3780	3480	2990	1240	890
6	610	499	465	490	544	168	402	1380	2890	2280	1830	781
7	558	499	472	490	551	313	346	885	2210	1720	1470	844
8	547	476	435	490	491	459	270	868	1890	1400	1440	957
9	547	454	459	480	478	438	494	615	1820	1180	1570	948
10	531	418	510	470	491	478	1530	555	1700	1270	1510	645
11	505	413	524	480	551	459	1370	657	1210	1680	1630	561
12	500	449	510	380	565	400	734	887	1300	2540	1450	544
13	451	460	453	330	544	453	3310	991	1960	1990	1180	481
14	436	460	429	500	517	393	1840	1620	2250	1540	970	444
15	392	530	429	720	498	381	778	1520	1270	1330	1120	452
16	381	465	388	740	459	447	538	1580	1470	1660	1280	444
17	389	335	388	530	459	617	573	2090	3310	1400	1500	448
18	431	305	410	280	453	523	629	2540	3470	1300	1780	461
19	438	362	400	240	411	662	836	2320	3040	1120	2590	481
20	396	410	400	240	411	649	915	2460	2550	955	3530	417
21	381	391	380	260	400	601	1420	2150	2360	947	4230	444
22	384	372	370	330	405	514	1150	2090	2410	1530	6660	444
23	404	367	370	380	236	522	958	2350	2710	1750	4330	452
24	420	351	370	430	199	597	821	3070	2980	1180	3850	461
25	396	348	380	480	176	624	942	3700	3020	943	4110	451
26	399	343	390	440	165	623	1070	4340	3020	1290	4310	473
27	433	222	390	440	160	779	1020	4710	3040	2520	3600	478
28	454	320	380	430	162	852	985	4560	3080	1110	2560	469
29	453	410	380	430	165	856	883	4380	2980	1100	2440	488
30	459	400	390	450	---	755	891	3780	2820	1490	2350	506
31	470	---	400	520	---	619	---	3360	---	1310	2120	---
TOTAL	14051	12527	13092	13690	12289	14986	26959	73768	78450	54705	73900	19874
MEAN	453	418	422	442	424	483	899	2380	2615	1765	2384	662
MAX	610	572	524	740	600	856	3310	4710	3730	3950	6660	1710
MIN	277	222	370	240	160	160	270	555	1210	943	970	417
AC-FT	27870	24850	25970	27150	24380	29720	53470	146300	155600	108500	146600	39420

CAL YR 1983 TOTAL 387984 MEAN 1063 MAX 6180 MIN 90 AC-FT 769600
WTR YR 1984 TOTAL 408291 MEAN 1116 MAX 6660 MIN 160 AC-FT 809800

07120620 BIG ARROYO NEAR THATCHER, CO

LOCATION.--Lat 37°33'17", long 104°01'15", in NW¼NW¼ sec.4, T.29 S., R.59 W., Las Animas County, Hydrologic Unit 11020005, on left bank 2.4 mi from U.S. Route 350, 4.8 mi east of Thatcher, and 3.2 mi upstream from mouth.

DRAINAGE AREA.--15.5 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,288 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharge. Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,500 ft³/s, July 28, 1985, gage height, 4.86 ft, from rating curve extended above about 1,100 ft³/s; no flow most of the time.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
July 28	1800	a *1500	*4.86	Aug. 3	2230	111	b 3.62

No flow most of time.
a-From rating curve extended above about 1,100 ft³/s.
b-From floodmark.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.4	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.8	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	46	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.14	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00	46.14	5.23	.00
MEAN	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.49	.17	.00
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	46	3.4	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	.00	92	10	.00

WTR YR 1985 TOTAL 51.37 MEAN .14 MAX 46 MIN .00 AC-FT 102

07120620 BIG ARROYO NEAR THATCHER, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 1983 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED-SIDIMENT DISCHARGE: July 1983 to current year.

INSTRUMENTATION.--Pumping sediment sampler since July 1983.

REMARKS.--No estimated daily record. Records are good. No flow most of the time. Daily specific conductance and temperature will be published in subsequent report.

EXTREMES FOR PERIOD OF RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily, 3,180 mg/L July 28, 1985; no flow most of time.
SEDIMENT LOADS: Maximum daily, 3,760 tons Aug. 1, 1983; minimum daily, no flow most time.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily, 3,180 mg/L, July 28; no flow most of time.
SEDIMENT LOADS: Maximum daily, 2,360 tons July 28; no flow most of time.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)
JUL											
28...	17:25	276	350	16.0	31	4.0	25	1	5.4	79	120
28...	17:50	--	450	15.5	48	6.3	31	1	6.4	76	180
28...	18:00	1500	505	7.0	59	8.1	27	0.9	6.4	135	200

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
JUL										
28...	6.3	0.5	6.9	250	0.3	166	0.63	0.03	59	7
28...	6.2	0.5	6.3	330	0.41	--	0.56	0.03	8	5
28...	4.5	0.4	5.6	390	0.47	1400	0.63	0.03	8	6

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
JUL					
28...	17:25	276	34900	26000	84
28...	17:35	420	26600	30200	81
28...	18:00	1500	21500	87100	87
28...	18:55	65	11000	1930	92
28...	19:20	27	8240	601	94

07120620 BIG ARROYO NEAR THATCHER, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	.00			.00			.00		
2	.00			.00			.00		
3	.00			.00			.00		
4	.00			.00			.00		
5	.00			.00			.00		
6	.00			.00			.00		
7	.00			.00			.00		
8	.00			.00			.00		
9	.00			.00			.00		
10	.00			.00			.00		
11	.00			.00			.00		
12	.00			.00			.00		
13	.00			.00			.00		
14	.00			.00			.00		
15	.00			.00			.00		
16	.00			.00			.00		
17	.00			.00			.00		
18	.00			.00			.00		
19	.00			.00			.00		
20	.00			.00			.00		
21	.00			.00			.00		
22	.00			.00			.00		
23	.00			.00			.00		
24	.00			.00			.00		
25	.00			.00			.00		
26	.00			.00			.00		
27	.00			.00			.00		
28	.00			.00			.00		
29	.00			.00			.00		
30	.00			.00			.00		
31	---			.00			---		
TOTAL	0.00			0.00			0.00		
		JULY			AUGUST			SEPTEMBER	
1	.00	---	---	.00	---	---	.00		
2	.00	---	---	.00	---	---	.00		
3	.00	---	---	3.4	1090	178	.00		
4	.00	---	---	1.8	2320	28	.00		
5	.00	---	---	.03	56	.00	.00		
6	.00	---	---	.00	---	---	.00		
7	.00	---	---	.00	---	---	.00		
8	.00	---	---	.00	---	---	.00		
9	.00	---	---	.00	---	---	.00		
10	.00	---	---	.00	---	---	.00		
11	.00	---	---	.00	---	---	.00		
12	.00	---	---	.00	---	---	.00		
13	.00	---	---	.00	---	---	.00		
14	.00	---	---	.00	---	---	.00		
15	.00	---	---	.00	---	---	.00		
16	.00	---	---	.00	---	---	.00		
17	.00	---	---	.00	---	---	.00		
18	.00	---	---	.00	---	---	.00		
19	.00	---	---	.00	---	---	.00		
20	.00	---	---	.00	---	---	.00		
21	.00	---	---	.00	---	---	.00		
22	.00	---	---	.00	---	---	.00		
23	.00	---	---	.00	---	---	.00		
24	.00	---	---	.00	---	---	.00		
25	.00	---	---	.00	---	---	.00		
26	.00	---	---	.00	---	---	.00		
27	.00	---	---	.00	---	---	.00		
28	46	3180	2360	.00	---	---	.00		
29	.14	440	.17	.00	---	---	.00		
30	.00	---	---	.00	---	---	.00		
31	.00	---	---	.00	---	---	---		
TOTAL	46.14	---	2360.17	5.23	---	206.00	0.00		
YEAR	51.37		2566.17						

07121500 TIMPAS CREEK AT MOUTH, NEAR SWINK, CO

LOCATION.--Lat 38°00'11", long 103°39'20", in NW¼SW¼ sec.35, T.23 S., R.56 W., Otero County, Hydrologic Unit 11020005, on left bank 40 ft shoreward, 125 ft upstream from left end of 20th Rd. Bridge, 1.7 mi southwest of Swink, and 2.9 mi upstream from mouth.

DRAINAGE AREA.--496 mi^2.

PERIOD OF RECORD.--January 1922 to September 1925, March 1968 to current year.

REVISED RECORDS.--WDR CO 76-1: 1975.

GAGE.--Water-stage recorder. Elevation of gage is 4,120 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to May 29, 1975, at site 140 ft downstream at datum 0.13 ft, lower.

REMARKS.--Estimated daily discharges: Nov. 27 to Dec. 20, Jan. 14-16, Jan. 28 to Feb. 7. Records good except for periods of estimated daily discharge, which are poor. Natural flow of stream affected by minor diversions above station for irrigation, water imported from Arkansas River and Crooked Arroyo for irrigation above station, and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--20 years (water years 1923-25, 1969-85), 64.0 ft^3/s; 46,370 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,300 ft^3/s, July 10, 1978, gage height, 21.11 ft, from floodmark, from rating curve extended above 250 ft^3/s, on basis of contracted-opening measurement of peak flow; minimum daily, 3.3 ft^3/s, Aug. 7, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1922, 21,400 ft^3/s, June 17, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 660 ft^3/s at 0530 July 22, gage height, 6.17 ft, from rating curve extended above 250 ft^3/s, on the basis of contracted-opening measurement of peak flow; minimum daily, 9.5 ft^3/s, Feb. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	142	120	34	16	10	26	130	172	58	82	112	35
2	116	117	33	13	9.5	22	61	144	95	64	91	36
3	108	117	33	13	10	25	49	142	101	63	80	64
4	124	125	32	16	10	27	66	141	106	63	96	51
5	127	134	32	17	10	28	153	84	90	61	105	53
6	92	112	31	18	11	29	88	166	96	57	87	60
7	46	105	30	18	11	30	59	186	80	51	69	62
8	85	108	29	18	12	31	60	149	86	67	79	66
9	116	117	28	16	12	32	59	137	89	58	66	72
10	118	139	27	14	12	43	71	104	88	65	57	69
11	118	151	27	10	12	69	53	111	73	56	60	70
12	122	122	26	10	13	176	56	109	75	51	64	74
13	130	107	26	10	12	148	57	167	67	78	64	75
14	111	122	25	14	12	83	65	220	59	91	65	85
15	130	150	24	15	12	111	60	185	58	85	64	77
16	63	122	23	15	14	149	41	160	58	96	71	72
17	40	92	22	14	14	167	39	180	80	61	84	93
18	45	64	21	14	13	157	56	165	80	66	101	76
19	62	62	20	14	14	133	58	117	61	76	84	84
20	49	58	19	13	15	132	61	136	70	138	54	94
21	53	58	18	13	18	125	44	134	78	128	61	92
22	74	62	17	14	17	116	116	159	77	225	60	98
23	141	63	17	13	15	152	136	108	71	98	61	100
24	144	63	18	13	14	153	98	175	58	100	59	111
25	134	63	17	13	15	101	81	199	72	94	65	115
26	129	62	17	13	16	68	117	188	75	77	67	123
27	133	38	18	13	18	198	118	167	76	74	60	121
28	135	38	17	12	18	161	123	124	81	63	58	118
29	137	37	17	12	---	100	150	70	79	196	55	123
30	138	36	17	12	---	144	128	88	55	99	45	122
31	128	---	17	11	---	150	---	57	---	112	52	---
TOTAL	3290	2764	732	427	369.5	3086	2453	4444	2292	2695	2196	2491
MEAN	106	92.1	23.6	13.8	13.2	99.5	81.8	143	76.4	86.9	70.8	83.0
MAX	144	151	34	18	18	198	153	220	106	225	112	123
MIN	40	36	17	10	9.5	22	39	57	55	51	45	35
AC-FT	6530	5480	1450	847	733	6120	4870	8810	4550	5350	4360	4940

CAL YR 1984 TOTAL 30270 MEAN 82.7 MAX 325 MIN 12 AC-FT 60040
WTR YR 1985 TOTAL 27239.5 MEAN 74.6 MAX 225 MIN 9.5 AC-FT 54030

07122400 CROOKED ARROYO NEAR SWINK, CO

LOCATION.--Lat 37°58'56", long 103°35'52", in SW¼SW¼ sec.5, T.24 S., R.55 W., Otero County, Hydrologic Unit 11020005, on right bank 54 ft downstream from bridge on State Highway 10, 2.0 mi upstream from mouth, and 2.8 mi southeast of Swink.

DRAINAGE AREA.--108 mi^2.

PERIOD OF RECORD.--February 1968 to current year.

REVISED RECORDS.--WDR CO 76-1: 1975.

GAGE.--Water-stage recorder. Elevation of gage is 4,100 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: July 9-10. Records good except above 80 ft^3/s, which are fair and estimated daily discharges, which are poor. Natural flow of stream affected by minor diversions above station for irrigation, water exported above station to Timpas Creek, water imported from Arkansas River for irrigation above station, and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--17 years, 11.9 ft^3/s; 8,620 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,200 ft^3/s, Aug. 7, 1971, gage height, 7.91 ft, from rating curve extended above 87 ft^3/s; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 342 ft^3/s at 1930 July 22, gage height, 5.25 ft, from rating curve extended above 50 ft^3/s, on basis of slope-area measurements of peak flow; minimum daily, 1.8 ft^3/s, Feb. 7-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	45	5.3	2.5	2.1	1.9	26	23	26	11	31	7.0
2	26	57	5.1	2.5	2.0	2.0	16	30	24	14	29	8.2
3	29	59	5.1	2.4	2.0	1.9	15	35	22	14	22	8.8
4	27	42	5.1	2.4	2.0	1.9	16	50	20	15	21	6.4
5	30	29	4.9	2.4	2.0	1.9	10	27	17	10	17	4.1
6	32	38	4.5	2.4	1.9	2.2	12	39	21	11	9.4	4.4
7	33	44	4.3	2.4	1.8	1.9	13	30	19	9.9	14	4.9
8	25	46	4.3	2.4	1.8	1.9	8.4	37	14	7.6	15	4.6
9	24	49	4.3	2.5	1.9	2.0	4.5	27	12	7.4	18	4.2
10	29	62	4.1	2.4	1.9	2.0	5.7	34	16	9.0	14	5.5
11	39	38	4.0	2.3	1.9	2.0	12	31	13	15	14	6.4
12	34	50	3.8	2.1	2.1	2.3	6.4	26	12	15	18	8.2
13	32	71	3.7	2.1	2.3	2.1	8.2	94	15	17	12	16
14	52	38	3.5	2.1	2.2	2.2	14	112	9.5	24	16	21
15	111	37	3.6	2.1	2.3	13	17	33	7.8	28	16	24
16	46	10	3.5	2.1	2.1	31	7.7	29	7.6	24	20	25
17	38	8.9	3.3	2.1	2.1	26	2.7	38	9.6	24	20	16
18	37	9.4	3.2	2.2	2.1	26	2.8	38	12	24	17	16
19	37	8.4	3.2	2.2	2.0	24	11	37	15	21	17	17
20	40	7.8	3.1	2.2	2.1	23	12	40	14	27	8.6	18
21	40	7.6	3.1	2.1	1.9	16	10	96	16	36	13	18
22	46	7.2	2.9	2.1	1.9	28	23	140	16	174	25	20
23	62	7.0	2.9	2.1	2.0	14	38	67	10	181	25	30
24	56	6.4	2.9	2.2	1.9	19	29	47	5.4	70	28	21
25	52	6.1	2.7	2.1	1.9	21	28	63	5.3	31	32	21
26	40	6.0	2.7	2.2	2.0	34	28	56	5.9	28	32	18
27	27	5.7	2.7	2.2	1.9	22	34	56	8.0	32	22	14
28	30	5.7	2.7	2.2	1.9	19	35	32	7.2	33	14	13
29	49	5.5	2.7	2.2	---	23	48	31	8.0	74	14	25
30	46	5.4	2.7	2.2	---	47	32	17	10	24	13	29
31	44	---	2.7	2.2	---	36	---	21	---	29	9.3	---
TOTAL	1243	812.1	112.6	69.6	56.0	450.2	525.4	1436	398.3	1039.9	576.3	434.7
MEAN	40.1	27.1	3.63	2.25	2.00	14.5	17.5	46.3	13.3	33.5	18.6	14.5
MAX	111	71	5.3	2.5	2.3	47	48	140	26	181	32	30
MIN	24	5.4	2.7	2.1	1.8	1.9	2.7	17	5.3	7.4	8.6	4.1
AC-FT	2470	1610	223	138	111	893	1040	2850	790	2060	1140	862

CAL YR 1984 TOTAL 7504.6 MEAN 20.5 MAX 354 MIN 1.5 AC-FT 14890
WTR YR 1985 TOTAL 7154.1 MEAN 19.6 MAX 181 MIN 1.8 AC-FT 14190

07123000 ARKANSAS RIVER AT LA JUNTA, CO

LOCATION.--Lat 37°59'26", long 103°31'55", in SE¼NE¼ sec.2, T.24 S., R.55 W., Otero County, Hydrologic Unit 11020005, on right bank at upstream side of bridge on State Highway 109 in La Junta, 450 ft upstream from King Arroyo.

DRAINAGE AREA.--12,210 mi^2, of which 115 mi^2 is probably noncontributing.

PERIOD OF RECORD.--May to August 1889, September 1893 to December 1895 (gage heights, discharge measurements, and flood data only), April to October 1903, June to November 1908 (gage heights and discharge measurements only), April 1912 to current year. Monthly discharge only for some periods, published in WSP 1311. Published as "near La Junta" in 1903.

REVISED RECORDS.--WSP 1341: Drainage area. WSP 1731: 1922.

GAGE.--Water-stage recorder and nonrecording gage read twice daily. Datum of gage is 4,039.60 ft above National Geodetic Vertical Datum of 1929. See WSP 1711 or 1731 for history of changes prior to June 13, 1940. June 13, 1940, to June 6, 1967, water-stage recorder at site 300 ft upstream at present datum.

REMARKS.--Estimated daily discharges: Jan. 10 to Mar. 16, June 8-14, 17, 19. Records fair except for estimated daily discharges, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of about 400,000 acres, and return flow from irrigated areas. Flow partly regulated by Pueblo Reservoir (station 07099350) since Jan. 9, 1974. Several observations of water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--61 Years (water years 1913-73), 244 ft^3/s; 176,800 acre-ft/yr, prior to completion of Pueblo Dam: 11 years (water years: 1975-85), 260 ft^3/s; 188,400 acre-ft/yr, subsequent to completion of Pueblo Dam.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 200,000 ft^3/s, June 4, 1921, gage height, 18.4 ft, site and datum then in use, from rating curve extended above 15,000 ft^3/s, on basis of slope-area measurement of peak flow; no flow, Jan. 20-23, Mar. 20-22, 1915.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,230 ft^3/s at 0300 June 14, gage height, 10.57 ft; minimum daily, 35 ft^3/s, Sept. 6

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	261	963	218	127	530	330	210	1050	996	214	551	45
2	214	1040	218	140	530	330	214	683	952	150	538	45
3	285	1020	214	150	530	350	176	420	804	94	609	42
4	290	735	214	150	570	330	187	381	528	84	447	42
5	444	454	218	140	570	340	314	396	658	82	326	40
6	1510	468	210	130	570	330	270	448	792	80	215	35
7	1010	468	199	156	570	320	206	1110	710	92	124	38
8	847	535	195	170	610	290	210	1030	676	89	124	40
9	468	442	187	184	650	180	162	900	1800	89	259	42
10	518	387	176	220	690	140	248	910	2400	87	118	42
11	1110	275	176	270	690	135	336	744	2700	55	121	42
12	300	222	176	350	730	150	405	692	2700	51	105	45
13	370	230	173	450	730	130	364	1010	2500	53	84	49
14	514	275	156	500	730	120	460	1160	3300	66	92	60
15	1240	460	152	620	770	130	667	710	3270	68	84	64
16	1510	652	143	640	770	100	726	528	3650	84	84	66
17	1090	275	140	650	770	149	475	549	2300	102	84	60
18	1330	239	140	600	730	133	113	386	1910	94	84	57
19	2000	230	136	540	730	198	255	464	1900	108	84	60
20	1960	226	136	540	680	305	116	632	1670	166	64	62
21	2180	244	136	540	680	222	94	870	1340	783	57	60
22	1960	257	133	540	640	170	105	1800	1180	1710	57	57
23	1830	280	130	540	610	206	146	1590	1050	1540	57	57
24	1800	285	127	620	640	248	159	2000	782	1770	53	57
25	1860	285	124	620	540	285	159	1700	782	1780	55	57
26	1680	290	124	540	380	252	143	1900	676	1060	55	57
27	1560	248	127	540	370	230	165	1150	507	676	51	57
28	1670	226	136	550	360	251	191	1050	393	840	45	55
29	2130	218	136	570	---	222	191	930	248	941	47	57
30	1950	218	136	570	---	261	184	1150	206	1730	51	57
31	963	---	133	570	---	285	---	1220	---	811	49	---
TOTAL	36854	12147	5019	12927	17370	7122	7651	29563	43380	15549	4774	1547
MEAN	1189	405	162	417	620	230	255	954	1446	502	154	51.6
MAX	2180	1040	218	650	770	350	726	2000	3650	1780	609	66
MIN	214	218	124	127	360	100	94	381	206	51	45	35
AC-FT	73100	24090	9960	25640	34450	14130	15180	58640	86040	30840	9470	3070

CAL YR 1984 TOTAL 218674 MEAN 597 MAX 9790 MIN 28 AC-FT 433700
WTR YR 1985 TOTAL 193903 MEAN 531 MAX 3650 MIN 35 AC-FT 384600

07123675 HORSE CREEK NEAR LAS ANIMAS, CO

LOCATION.--Lat 38°05'06", long 103°21'12", in SE¼SW¼ sec.33, T.22 S., R.53 W., Bent County, Hydrologic Unit 11020008, 15 ft right of right upstream end of box culverts on State Highway 194, 3.2 mi upstream of mouth, 3.4 mi downstream from Fort Lyon Canal Aqueduct, and 7.5 mi west of Las Animas.

PERIOD OF RECORD.--October 1979 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 3,975 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 10-15, Jan. 27 to Feb. 7, June 20-21, Sept. 10-30. Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by seepage and sluicing from Fort Lyon Canal. There is some irrigation upstream, however, amounts are unknown. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--6 years, 15.2 ft^3/s; 11,010 acre-ft per year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 345 ft^3/s, June 7, 1983, gage height, 4.39 ft; from rating curve extended above 130 ft^3/s; no flow many days in 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 198 ft^3/s at 1830 July 31, gage height, 4.05 ft, from rating curve extended above 130 ft^3/s; minimum daily, 7.0 ft^3/s, Feb. 2-5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	12	11	11	7.2	13	14	51	49	57	140	19
2	28	12	11	9.3	7.0	13	34	61	42	53	96	17
3	50	12	10	10	7.0	14	34	46	35	46	83	17
4	58	12	10	12	7.0	12	35	50	46	24	57	16
5	52	12	10	11	7.0	12	39	29	52	18	48	17
6	53	12	9.8	11	7.2	13	30	23	48	28	66	15
7	55	13	10	11	7.2	13	27	47	55	26	49	15
8	53	13	11	11	7.4	12	30	61	37	19	43	15
9	46	13	10	10	8.2	12	38	54	32	12	38	14
10	47	13	9.8	9.5	9.0	13	31	49	35	15	36	14
11	48	13	11	9.0	8.8	13	33	39	42	15	34	20
12	45	13	10	9.0	9.2	15	25	40	34	16	33	15
13	40	13	10	9.0	9.8	15	24	76	29	12	37	15
14	45	13	10	9.2	11	19	21	82	34	50	52	16
15	58	13	11	9.5	11	14	21	67	28	53	41	17
16	59	13	11	8.9	12	14	17	61	41	51	32	18
17	38	13	12	9.7	11	14	15	48	43	46	31	19
18	35	13	12	10	11	12	14	30	71	46	31	20
19	24	12	11	11	11	11	15	23	53	65	34	20
20	15	12	12	10	12	9.7	16	18	45	59	27	22
21	13	12	12	9.8	12	7.6	17	39	90	70	23	24
22	12	12	12	10	11	8.0	24	68	55	104	23	25
23	12	12	12	9.7	15	7.8	32	65	46	90	22	40
24	12	12	11	9.7	15	7.9	21	68	55	91	20	25
25	12	12	10	10	13	8.1	39	39	57	99	20	25
26	12	11	11	10	13	8.4	41	26	52	89	19	27
27	12	11	11	10	14	8.2	30	23	42	75	20	27
28	12	11	12	9.0	14	8.5	33	21	48	68	21	29
29	11	11	11	8.5	---	8.8	43	19	43	90	20	30
30	12	11	11	8.0	---	9.7	44	18	46	84	20	30
31	12	---	11	7.5	---	12	---	17	---	147	20	---
TOTAL	1004	367	336.6	303.3	288.0	358.7	837	1358	1385	1718	1236	623
MEAN	32.4	12.2	10.9	9.78	10.3	11.6	27.9	43.8	46.2	55.4	39.9	20.8
MAX	59	13	12	12	15	19	44	82	90	147	140	40
MIN	11	11	9.8	7.5	7.0	7.6	14	17	28	12	19	14
AC-FT	1990	728	668	602	571	711	1660	2690	2750	3410	2450	1240

CAL YR 1984 TOTAL 9107.6 MEAN 24.9 MAX 74 MIN 5.5 AC-FT 18060
WTR YR 1985 TOTAL 9814.6 MEAN 26.9 MAX 147 MIN 7.0 AC-FT 19470

07124000 ARKANSAS RIVER AT LAS ANIMAS, CO

LOCATION.--Lat 38°04'51", long 103°13'09", in SE¼NE¼ sec.3, T.23 S., R.52 W., Bent County, Hydrologic Unit 11020009, on right bank at upstream side of bridge on U.S. Highway 50, 1.1 mi north of courthouse in Las Animas, and 4.2 mi upstream from Purgatoire River.

DRAINAGE AREA.--14,417 mi², of which 441 mi² are probably noncontributing.

PERIOD OF RECORD.--Streamflow records, May to November 1898 (gage heights only), August to November 1909 (gage heights and discharge measurements only), May 1939 to current year. Water-quality data available, November 1963 to September 1966.

REVISED RECORDS.--WSP 1341: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,883.97 ft above National Geodetic Vertical Datum of 1929. May 13 to Nov. 12, 1898, and Aug. 1 to Nov. 10, 1909, nonrecording gages near present site at different datums. May 23, 1939, to Apr. 27, 1967, water-stage recorder at site 0.4 mi downstream at datum 9.00 ft, lower.

REMARKS.--Estimated daily discharges: Jan. 3-5, Jan. 11 to Feb. 18. Records good except for estimated daily discharges, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of about 412,000 acres, and return flow from irrigated areas. Flow partly regulated by Pueblo Reservoir (station 07099350) since Jan. 9, 1974. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--34 years (water years 1940-73), 203 ft³/s; 147,100 acre-ft/yr, prior to completion of Pueblo Dam; 11 years (water years 1975-85), 246 ft³/s; 178,200 acre-ft/yr, subsequent to completion of Pueblo Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 44,000 ft³/s, May 20, 1955, gage height, 15.03 ft, site and datum then in use, from rating curve extended above 24,000 ft³/s, on basis of slope-area measurement of peak flow; minimum daily, 0.9 ft³/s, July 31, Aug. 1, 3, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,660 ft³/s at 0700 May 23, gage height, 6.57 ft, maximum gage height, 6.60 ft at 0930 June 12; minimum daily discharge, 42 ft³/s, July 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	232	983	216	151	700	407	284	561	2150	143	1060	46
2	293	982	196	128	650	391	221	663	1960	104	622	46
3	339	994	192	150	650	383	220	504	1540	98	887	50
4	449	885	188	160	650	441	182	500	872	84	963	52
5	436	679	216	200	700	407	243	440	931	69	519	49
6	1050	614	216	206	700	428	392	393	1020	61	463	47
7	1030	603	234	170	700	425	205	604	972	66	191	48
8	1050	609	249	188	700	406	189	1300	686	60	124	53
9	619	558	234	194	750	380	192	1040	1870	50	184	52
10	537	472	222	164	800	211	143	1030	2430	46	182	48
11	859	418	230	250	850	166	337	948	2830	43	98	47
12	683	335	228	300	850	164	422	790	2810	44	79	51
13	444	305	228	400	900	180	472	1190	2660	42	63	55
14	572	312	228	500	900	162	302	1500	2980	50	70	55
15	933	370	201	550	900	146	772	887	2930	65	73	54
16	1520	654	194	592	950	170	857	615	2850	71	62	59
17	1170	383	189	610	950	114	662	627	2060	72	59	64
18	1230	237	177	650	950	106	291	581	1520	68	59	60
19	1790	195	176	650	900	115	107	315	1580	96	61	54
20	1760	186	173	600	908	164	164	696	1580	136	60	55
21	1700	172	171	600	828	188	74	858	936	309	55	59
22	1860	252	166	600	835	185	61	1750	726	2260	55	60
23	1570	298	163	600	751	194	84	3100	488	2000	55	57
24	1480	312	159	600	689	262	88	2840	447	2110	52	54
25	1510	291	147	700	727	286	80	2750	367	2720	48	56
26	1500	277	152	700	594	298	88	2550	385	2360	47	57
27	1550	252	153	658	421	244	83	2650	302	1060	50	63
28	1490	196	158	663	409	247	102	2270	247	1030	51	63
29	1590	206	155	693	---	260	142	2490	307	1330	49	59
30	1440	210	145	700	---	258	138	2360	289	2000	49	62
31	1170	---	155	700	---	330	---	2320	---	1340	50	---
TOTAL	33856	13240	5911	14047	21312	8118	7597	41122	42725	19987	6440	1635
MEAN	1092	441	191	453	761	262	253	1327	1424	645	208	54.5
MAX	1860	994	249	700	950	441	857	3100	2980	2720	1060	64
MIN	232	172	145	128	409	106	61	315	247	42	47	46
AC-FT	67150	26260	11720	27860	42270	16100	15070	81570	84750	39640	12770	3240

CAL YR 1984 TOTAL 214747 MEAN 587 MAX 5350 MIN 73 AC-FT 426000
WTR YR 1985 TOTAL 215990 MEAN 592 MAX 3100 MIN 42 AC-FT 428400

07124200 PURGATOIRE RIVER AT MADRID, CO

LOCATION.--Lat 37°07'46", long 104°38'20", in SW¼NE¼ sec.35, T.33 S., R.65 W., Las Animas County, Hydrologic Unit 11020010, on left bank 70 ft downstream from county bridge, 0.3 mi northeast of Madrid, and 1.0 mi downstream from Burro Canyon.

DRAINAGE AREA.--505 mi^2.

PERIOD OF RECORD.--Streamflow records, March 1972 to current year. Water-quality data available October 1978 to September 1981

GAGE.--Water-stage recorder. Datum of gage is 6,261.61 ft above National Geodetic Vertical Datum of 1929 (U.S. Army, Corps of Engineers bench mark).

REMARKS.--Estimated daily discharges: Nov. 26 to Feb. 8, Mar. 4, May 6-9, 18-30, June 3, 10-14, July 1-28, Sept. 27-30. Records good except for except estimated daily discharge, which are poor. Diversions for irrigation of about 6,000 acres above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--13 years, 69.6 ft^3/s; 50,430 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,300 ft^3/s, July 20, 1976, gage height, 12.80 ft, from floodmarks, from rating curve extended above 300 ft^3/s, on basis of drift-timed measurement of peak flow; minimum daily, 3.0 ft^3/s, Feb. 23 to Mar. 2, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 22	unknown	2,840	a5.45	Aug. 9	2030	2,230	4.99
July 31	2045	1,710	4.51	Aug. 14	1815	1,480	4.28
Aug. 1	1315	1,320	4.12	Sept. 1	1630	*4,070	*6.67

a - From floodmark.
Minimum daily discharge, 15 ft^3/s, Feb. 1-2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	39	26	20	15	19	35	176	238	190	151	216
2	35	39	27	21	15	19	35	180	233	180	99	69
3	41	37	28	22	16	19	35	177	230	180	80	52
4	98	37	29	24	16	19	53	191	219	170	87	58
5	54	37	30	28	17	18	56	233	218	150	91	49
6	49	35	32	27	18	19	53	300	214	140	80	41
7	43	35	38	26	19	19	53	400	226	140	72	38
8	39	33	40	25	20	17	63	350	269	130	65	36
9	45	33	38	23	22	18	72	290	284	130	171	34
10	52	30	39	21	22	19	70	283	300	140	90	32
11	40	35	32	20	28	26	63	293	320	130	76	56
12	39	38	30	20	28	37	73	271	340	120	65	64
13	37	33	29	22	22	25	72	265	350	110	57	76
14	43	32	28	24	22	25	73	266	350	110	140	57
15	61	30	31	25	23	27	77	191	338	250	64	50
16	49	32	30	27	26	37	85	174	346	140	55	53
17	43	34	29	31	36	28	96	171	335	120	48	47
18	57	32	30	27	31	31	104	240	342	110	178	34
19	48	28	33	25	26	36	106	220	306	105	75	38
20	51	30	32	24	25	36	101	210	290	100	65	42
21	48	26	31	24	22	30	89	300	277	500	83	58
22	44	28	31	24	20	32	87	800	260	280	83	48
23	40	32	31	24	23	27	79	400	259	140	57	49
24	41	32	30	25	24	30	66	300	253	120	51	44
25	43	30	32	26	23	30	56	290	255	110	53	39
26	43	27	36	28	23	32	80	290	252	105	48	37
27	43	25	34	28	18	32	87	290	237	100	53	35
28	41	27	30	26	21	29	98	280	221	100	55	33
29	39	26	26	22	---	35	161	270	213	123	50	39
30	39	26	23	18	---	32	158	260	201	115	44	37
31	39	---	21	16	---	23	---	247	---	188	42	---
TOTAL	1423	958	956	743	621	826	2336	8608	8176	4726	2428	1561
MEAN	45.9	31.9	30.8	24.0	22.2	26.6	77.9	278	273	152	78.3	52.0
MAX	98	39	40	31	36	37	161	800	350	500	178	216
MIN	35	25	21	16	15	17	35	171	201	100	42	32
AC-FT	2820	1900	1900	1470	1230	1640	4630	17070	16220	9370	4820	3100

CAL YR 1984 TOTAL 29554 MEAN 80.7 MAX 423 MIN 21 AC-FT 58620
WTR YR 1985 TOTAL 33362 MEAN 91.4 MAX 800 MIN 15 AC-FT 66170

07124300 LONG CANYON CREEK NEAR MADRID, CO

LOCATION.--Lat 37°06'53", long 104°36'17", in SE¼NW¼ sec.6, T.34 S., R.64 W., Las Animas County, Hydrologic Unit 11020010, on left bank 700 ft upstream from private bridge, 1.4 mi upstream from Oso Canyon, 2.2 mi southeast of Madrid, and 2.3 mi upstream from mouth.

DRAINAGE AREA.--100 mi².

PERIOD OF RECORD.--March 1972 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 6,259.09 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 20 to Nov. 8, Nov. 26 to Dec. 7, Dec. 12-14, Jan. 1-3, 9-15, 17, 20-21, 30-31, Feb. 1-13, 23-24, Mar. 4, July 13-29, Aug. 6-25. Records good except for estimated daily discharges, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--13 years, 3.75 ft³/s; 2,720 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,140 ft³/s, July 17, 1979, gage height, 7.37 ft, from floodmarks, from rating curve extended above 1,000 ft³/s, on basis of slope-area measurements at gage heights 6.88 ft, and 7.37 ft; no flow, Feb. 22 to May 22, 1979.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 6	1845	455	4.04	Aug. 28	1445	*992	*4.86
May 22	1700	440	4.01	Sept.11	1515	209	3.40
July 31	1900	530	4.21				

Minimum daily discharge, 0.20 ft³/s, Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.88	.90	.54	.45	.30	.76	2.6	40	5.9	1.8	10	.34
2	1.2	.90	.52	.40	.30	.76	2.5	28	4.8	1.7	6.6	.44
3	1.4	.86	.54	.42	.31	.76	2.7	18	4.4	1.7	6.0	.34
4	2.3	.86	.48	.44	.34	.74	2.9	13	4.3	1.6	5.7	.44
5	2.0	.86	.48	.53	.35	.77	3.1	9.7	4.6	1.4	6.0	.34
6	1.8	.88	.49	.46	.42	.76	3.0	35	4.4	1.3	3.0	.26
7	1.2	.88	.50	.54	.50	.73	2.7	114	3.8	1.3	1.5	.26
8	1.0	.88	.53	.54	.52	.64	2.7	43	3.6	1.2	1.0	.26
9	1.8	.76	.56	.45	.56	.68	3.0	25	3.5	1.2	2.0	.26
10	1.6	.63	.54	.40	.60	.71	3.3	18	3.5	1.2	1.5	.20
11	1.2	.64	.54	.37	.65	.76	2.9	13	3.4	.97	1.0	36
12	1.0	.64	.51	.35	.75	1.2	2.8	10	4.0	.88	.90	24
13	1.0	.67	.50	.40	.82	1.2	2.6	11	3.9	.84	.80	2.4
14	1.2	.64	.49	.45	1.0	1.1	2.6	11	3.6	.80	1.5	1.6
15	1.4	.61	.53	.50	1.4	1.1	2.5	7.8	3.2	5.0	.90	1.3
16	1.0	.79	.61	.45	.98	1.3	2.5	6.9	3.0	1.4	.80	4.8
17	1.0	.88	.55	.70	.80	1.4	2.5	6.6	3.0	.98	.70	1.9
18	.88	.80	.53	.52	.74	1.8	2.5	10	3.7	.90	.60	1.4
19	1.0	.76	.67	.50	.73	2.3	2.6	9.5	3.5	1.0	.80	1.3
20	1.1	.69	.62	.45	.64	2.3	2.5	8.4	3.2	.94	.70	1.2
21	1.0	.71	.65	.50	.64	2.1	2.3	8.9	2.9	10	.65	1.3
22	1.0	.73	.63	.44	.64	2.2	2.4	165	2.9	8.0	.60	1.0
23	.96	.75	.64	.44	.62	1.9	2.4	127	2.8	2.0	.55	.98
24	.98	.76	.57	.54	.72	1.8	2.2	56	2.6	2.4	.54	.91
25	1.0	.73	.51	.54	.78	1.7	2.2	38	2.4	2.0	.54	.89
26	1.0	.64	.64	.64	.76	1.9	3.0	26	2.3	1.8	.54	.91
27	1.0	.60	.76	.54	.78	1.9	3.6	18	2.2	1.7	.60	.80
28	.90	.70	.72	.50	.76	1.8	3.1	14	2.0	1.6	69	.76
29	.90	.60	.64	.44	---	1.8	32	11	1.9	1.5	3.1	1.1
30	.90	.57	.60	.36	---	2.2	59	9.4	1.9	1.4	1.0	.98
31	.90	---	.54	.31	---	2.3	---	7.4	---	34	.54	---
TOTAL	36.50	22.32	17.63	14.57	18.41	43.37	166.7	918.6	101.2	94.51	129.66	88.67
MEAN	1.18	.74	.57	.47	.66	1.40	5.56	29.6	3.37	3.05	4.18	2.96
MAX	2.3	.90	.76	.70	1.4	2.3	59	165	5.9	34	69	36
MIN	.88	.57	.48	.31	.30	.64	2.2	6.6	1.9	.80	.54	.20
AC-FT	72	44	35	29	37	86	331	1820	201	187	257	176

CAL YR 1984 TOTAL 1627.36 MEAN 4.45 MAX 108 MIN .48 AC-FT 3230
WTR YR 1985 TOTAL 1652.14 MEAN 4.53 MAX 165 MIN .20 AC-FT 3280

07124400 TRINIDAD LAKE NEAR TRINIDAD, CO

LOCATION.--Lat 37°08'27", long 104°33'03", in NE¼SW¼ sec.27, T.33 S., R.64 W., Las Animas County, Hydrologic Unit 11020010, in valve house near center of dam on Purgatoire River and 3.2 mi southwest of courthouse in Trinidad.

DRAINAGE AREA.--672 mi^2.

PERIOD OF RECORD.--August 1977 to current year.

REVISED RECORDS.--WDR-CO-78-1: 1977(M). WDR-CO-83-1: 1981-82 (contents).

GAGE.--Water-stage recorder. Datum of gage is 6,073.64 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army, Corps of Engineers).

REMARKS.--No estimated daily discharges. Records good. Reservoir is formed by a rock and earthfill dam completed in 1977. Storage began Aug. 19, 1977. Total capacity, 166,700 acre-ft, at elevation 6,279.99 ft. Elevation of high crest of spillway, 6,258 ft, with capacity of 119,900 acre-ft. Elevation of notch crest in spillway is 6,243.0 ft, capacity, 91,900 acre-ft. Permanent pool is 4,500 acre-ft at elevation 6,142.7 ft. Elevation of outlet invert is 6,095.0 ft. Reservoir is used for flood control, storage for irrigation, and to help control sedimentation. Figures given are total contents.

COOPERATION.--Capacity tables were provided by U.S. Army, Corps of Engineers.

EXTREMES (AT 2400) FOR PERIOD OF RECORD.--Maximum contents, 61,800 acre-ft, Apr. 26, 1983, elevation, 6,222.66 ft; no contents prior to Aug. 19, 1977.

EXTREMES (AT 2400) FOR CURRENT YEAR.--Maximum contents, 37,000 acre-ft, May 9, elevation, 6,200.24 ft; minimum contents, 17,000 acre-ft, Sept. 30, elevation, 6172.90 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)

6,175.0	18,100	6,200.0	36,800	6,220.0	58,400
6,180.0	21,200	6,210.0	46,800	6,230.0	71,800
6,190.0	28,300				

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23000	25300	26900	28300	29700	31000	32100	34100	36100	34900	32000	24900
2	22900	25300	27000	28300	29700	31000	32100	34600	36500	34800	32000	24700
3	22800	25400	27000	28300	29800	31100	32100	35000	36800	34600	31900	24300
4	22800	25500	27000	28400	29800	31100	32100	35400	36500	34400	31800	23900
5	22900	25600	27000	28400	29800	31200	32200	36000	36300	34200	31800	23500
6	23000	25600	27100	28500	29900	31200	32200	36600	36100	34000	31700	23100
7	23100	25700	27100	28600	29900	31200	32200	36900	35900	33800	31600	22700
8	23200	25800	27100	28600	29900	31300	32300	37000	35700	33500	31400	22300
9	23300	25800	27100	28700	30000	31300	32400	37000	35700	33200	31300	21900
10	23300	25800	27200	28700	30000	31300	32500	37000	35800	32900	31300	21400
11	23400	25900	27200	28800	30100	31400	32600	37000	35900	32600	31100	21100
12	23500	26000	27200	28800	30100	31500	32700	36900	36000	32200	30800	20800
13	23500	26100	27300	28800	30200	31500	32800	36800	36000	31800	30500	20700
14	23600	26100	27300	28900	30200	31600	32900	36600	36100	31500	30500	20500
15	23700	26200	27400	28900	30300	31700	33000	36400	36100	31300	30300	20400
16	23800	26200	27400	29000	30400	31700	33100	36100	36100	31000	30000	20200
17	23900	26300	27500	29000	30400	31800	33200	35800	36200	30700	29700	19900
18	24000	26300	27500	29100	30500	31800	33400	35500	36300	30500	29800	19600
19	24100	26400	27600	29200	30600	31900	33400	35200	36300	30400	29600	19300
20	24200	26400	27600	29200	30600	32000	33500	34900	36300	30300	29200	19000
21	24300	26400	27700	29200	30700	32000	33600	34700	36300	30300	28900	18700
22	24400	26500	27700	29300	30700	32100	33700	35000	36200	30500	28600	18400
23	24500	26600	27700	29300	30800	32100	33600	35600	36100	30600	28200	18200
24	24600	26600	27800	29400	30800	32200	33600	35800	36100	30900	27700	18000
25	24700	26700	27800	29400	30900	32200	33000	35800	36000	31200	27300	17800
26	24800	26700	27900	29500	30900	32300	32700	35900	35900	31400	26800	17600
27	24900	26700	28000	29500	30900	32300	32700	35900	35700	31600	26400	17400
28	25000	26800	28100	29600	31000	32300	32800	35800	35600	31800	26000	17300
29	25000	26800	28200	29600	---	32300	33200	35800	35300	31800	25600	17100
30	25100	26900	28200	29600	---	32200	33700	35700	35100	31600	25200	17000
31	25200	---	28300	29700	---	32100	---	35600	---	31700	24900	---
MAX	25200	26900	28300	29700	31000	32300	33700	37000	36800	34900	32000	24900
MIN	22800	25300	26900	28300	29700	31000	32100	34100	35100	30300	24900	17000

CAL YR 1984 MAX 46900 MIN 22800
WTR YR 1985 MAX 37000 MIN 17000

07124410 PURGATOIRE RIVER BELOW TRINIDAD LAKE, CO

LOCATION.--Lat 37°08'37", long 104°32'49", in SW¼NE¼ sec.27, T.33 S., R.64 W., Las Animas County, Hydrologic Unit 11020010, on left bank at toe of dam and 3.0 mi southwest of court house in Trinidad.

DRAINAGE AREA.--672 mi^2.

PERIOD OF RECORD.--Streamflow records, December 1976 to current year. Water-quality data available, March 1977 to September 1984.

GAGE.--Water-stage recorder with concrete control. Datum of gage is 6,073.64 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army, Corps of Engineers). Auxiliary gage is water-stage recorder in shelter about 1,000 ft downstream.

REMARKS.--Estimated daily discharges: Jan. 29 to Feb. 8. Records good. Natural flow of stream affected by diversions above station for irrigation of about 6,000 acres. Flow since Aug. 19, 1977, completely regulated by Trinidad Lake (station 071244[illegible]) immediately upstream.

AVERAGE DISCHARGE.--8 years (water years 1978-85), 84.0 ft^3/s; 60,860 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 963 ft^3/s, Sept. 10, 1981, gage height, 7.89 ft; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 413 ft^3/s at 0630 May 14, gage height, 6.89 ft; minimum daily, 0.01 ft^3/s, Jan. 6-9, 11-31, Feb. 1-8, 15-25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	119	.14	.06	.02	.01	.05	40	.16	5.1	254	182	165
2	119	.12	.06	.03	.01	.05	24	.13	4.1	224	163	165
3	110	.11	.04	.02	.01	.04	21	.11	108	224	151	220
4	79	.11	19	.02	.01	.05	20	.03	349	229	151	239
5	21	.11	30	.02	.01	.06	20	.03	322	230	150	238
6	3.4	.11	30	.01	.01	.04	20	.25	320	232	150	235
7	.51	.11	28	.01	.01	.04	20	165	330	232	150	232
8	.55	.10	19	.01	.01	.04	11	270	329	232	177	208
9	24	.08	.10	.01	3.7	.04	5.1	276	329	240	190	216
10	42	.06	.10	.02	2.7	.04	5.1	280	327	248	191	240
11	13	.06	19	.01	.04	.04	5.1	284	327	249	191	250
12	.44	.06	32	.01	.03	.12	11	284	327	250	197	188
13	.44	.05	9.7	.01	.02	.22	25	285	325	250	201	128
14	.48	.03	.14	.01	.02	.23	25	286	324	249	199	107
15	.51	.03	.14	.01	.01	.22	25	295	301	249	195	104
16	.47	.03	.14	.01	.01	.22	7.9	299	289	248	197	125
17	.44	.02	.13	.01	.01	.22	4.7	299	290	246	197	164
18	.42	.02	.11	.01	.01	.20	38	299	282	233	197	181
19	.44	4.3	.11	.01	.01	.20	47	298	280	197	197	180
20	.46	6.4	.11	.01	.01	.20	47	293	273	191	212	179
21	.47	2.9	.11	.01	.01	.18	47	309	273	196	217	179
22	.45	.08	.11	.01	.01	.18	47	105	272	170	218	178
23	.44	.07	.11	.01	.01	.18	90	6.2	272	98	239	157
24	.42	.06	.11	.01	.01	.18	188	194	273	.55	262	137
25	.39	.04	.11	.01	.01	.18	246	244	274	.51	260	123
26	.37	.04	.11	.01	16	.18	247	224	276	.48	244	119
27	.34	.04	.11	.01	25	.18	73	264	276	.44	237	126
28	.33	.05	.12	.01	9.2	.18	.28	286	276	.44	235	124
29	.30	.04	.04	.01	---	54	.28	289	276	123	240	122
30	.25	.06	.04	.01	---	74	.28	289	277	185	256	118
31	.14	---	.04	.01	---	74	---	289	---	183	192	---
TOTAL	539.46	15.43	188.95	.38	56.90	205.76	1360.74	6412.91	8186.2	5664.42	6238	5147
MEAN	17.4	.51	6.10	.01	2.03	6.64	45.4	207	273	183	201	172
MAX	119	6.4	32	.03	25	74	247	309	349	254	262	250
MIN	.14	.02	.04	.01	.01	.04	.28	.03	4.1	.44	150	104
AC-FT	1070	31	375	.7	113	408	2700	12720	16240	11240	12370	10210

CAL YR 1984 TOTAL 35061.71 MEAN 95.8 MAX 367 MIN .02 AC-FT 69540
WTR YR 1985 TOTAL 34016.15 MEAN 93.2 MAX 349 MIN .01 AC-FT 67470

07126130 VAN BREMER ARROYO NEAR THATCHER, CO

LOCATION.--Lat 37°24'36", long 104°10'19", in NW¼NW¼ sec.19, T.30 S., R.60 W., Las Animas County, Hydrologic Unit 11020010, on left bank 3.3 mi down stream from U.S. Route 350, and 9.8 mi southwest of Thatcher.

DRAINAGE AREA.--80.6 mi², of which 11.8 mi² probably is noncontributing.

PERIOD OF RECORD.--March 1983 to May 1985 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 5,401 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--No flow during entire period of record.

07126140 VAN BREMER ARROYO NEAR TYRONE, CO

LOCATION.--Lat 37°23'58", long 104°06'55", in SW¼SW¼, sec.27, T.30 S., R. 60 W., Las Animas County, Hydrologic Unit 11020010, on left bank, on Pinon Canyon Army Maneuver Site, 200 ft downstream from military road at gas line crossing near Brown Sheep Camp, 6 mi southeast of Tyrone, and 11 mi upstream from mouth.

DRAINAGE AREA.--132 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to September 1985.

GAGE.--Water-stage recorder. Elevation of gage is 5,310 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: July 9-18, Sept. 26-27. Gage was moved downstream from previous site (07126130) to monitor return flow from irrigation not monitored by previous gage. Natural flow affected by return flow from irrigation and storage in a small channel reservoir upstream. Records good except for periods of estimated daily discharges, which are fair.

EXTREMES FOR PERIOD MAY TO SEPTEMBER 1985.--Maximum discharge, 47 ft³/s at about 2000 June 18, gage height, 5.90 ft from floodmark, from rating curve extended above about 20 ft³/s; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								---	1.4	.61	.00	.00
2								---	2.6	.49	.01	1.3
3								---	2.5	.19	.02	2.1
4								---	.77	.14	.02	3.7
5								---	.59	.10	.00	4.3
6								---	.73	.09	.00	3.5
7								---	1.0	.06	.00	4.2
8								---	1.6	.05	.00	6.6
9								---	3.2	.04	.00	6.6
10								---	11	.04	.00	5.3
11								---	15	.03	.00	4.8
12								---	14	.03	.00	4.6
13								---	14	.02	.00	6.2
14								---	9.0	.02	.00	5.4
15								---	12	.02	.00	7.4
16								---	13	.02	.00	12
17								---	14	.01	.00	11
18								---	28	.01	.00	10
19								---	20	1.5	.00	11
20								---	14	1.8	.00	9.3
21								15	12	1.3	.00	9.3
22								21	8.0	.67	.06	7.5
23								15	6.2	.79	.02	7.0
24								7.8	5.1	.07	.00	7.2
25								3.6	3.1	.02	.00	7.2
26								4.0	2.7	.01	.00	11
27								4.6	2.4	.00	.00	16
28								3.3	2.2	.01	.00	17
29								2.9	2.0	.01	.00	23
30								1.6	1.2	.01	.00	21
31								.71	---	.00	.00	---
TOTAL								---	223.29	8.16	.13	245.50
MEAN								---	7.44	.26	.00	8.18
MAX								---	28	1.8	.06	23
MIN								---	.59	.00	.00	.00
AC-FT								---	443	16	.30	487

07126140 VAN BREMER ARROYO NEAR TYRONE, CO--Continued

PERIOD OF RECORD.--May to September 1985.

REMARKS.--Daily conductance and temperature will be published in subsequent report.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
JUL										
23...	17:15	1.8	260	82	250	4	11	98	1400	60

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JUL									
23...	0.6	8.5	2100	2.8	10	1.50	0.01	30	50

07126200 VAN BREMER ARROYO NEAR MODEL, CO

LOCATION.--Lat 37°20'45", long 103°57'27", in sec.13, T.31 S., R.59 W., Las Animas County, Hydrologic Unit 11020010, on right bank 3 mi upstream from mouth, 16 mi east of Model, and 33 mi northeast of Trinidad.

DRAINAGE AREA.--175 mi² of which 11.8 mi² is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1966 to current year.

REVISIONS.--WDR CO-84-1: Drainaige area.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 4,960 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 4-17, Jan 22 to Feb. 20, Feb. 25 to Mar. 4. Records good except for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--19 years, 2.43 ft³/s; 1,760 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,240 ft³/s, May 26, 1967, gage height, 9.4 ft, from floodmarks, from rating curve extended above 65 ft³/s, on basis of slope-area measurement of peak flow; maximum gage height, 9.98 ft, Aug. 9, 1979 from floodmark; no flow, June 7-13, 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 18	2330	*86	*1.97				

Minimum daily, 0.09 ft³/s, many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	.18	.18	.18	.12	.17	.21	.18	.70	.48	.15	.12
2	26	.21	.18	.18	.12	.16	.21	.16	.40	.37	.18	.12
3	24	.20	.18	.18	.12	.16	.21	.15	.25	.26	.17	.12
4	42	.18	.19	.18	.12	.15	.20	.15	.50	.19	.15	.12
5	43	.18	.21	.18	.15	.15	.21	.15	1.0	.18	.15	.12
6	43	.18	.21	.18	.17	.15	.21	.15	.40	.18	.13	.12
7	36	.18	.21	.18	.17	.15	.21	.15	.25	.21	.12	.99
8	14	.18	.21	.18	.17	.15	.21	.15	.21	.20	.12	3.0
9	6.3	.18	.21	.16	.17	.15	.19	.15	.18	.18	.12	8.0
10	3.8	.18	.21	.16	.17	.15	.20	.15	.15	.18	.12	7.6
11	2.4	.18	.20	.16	.17	.15	.20	.13	8.6	.18	.12	6.3
12	1.8	.18	.18	.16	.16	.21	.18	.13	11	.18	.10	7.0
13	1.2	.18	.18	.16	.16	.21	.18	.19	13	.18	.09	3.5
14	.67	.18	.18	.15	.16	.18	.15	4.0	8.9	.21	.09	6.9
15	.61	.18	.18	.15	.16	.18	.15	3.4	7.8	.27	.09	4.8
16	.97	.18	.18	.15	.16	.18	.15	4.7	11	.32	.09	12
17	2.1	.18	.18	.15	.16	.18	.15	15	13	.25	.09	14
18	2.6	.18	.18	.15	.16	.18	.14	19	33	.23	.09	12
19	1.1	.18	.18	.15	.16	.18	.12	21	26	.21	.09	12
20	.75	.18	.18	.15	.15	.18	.12	16	17	2.1	.09	11
21	.43	.20	.21	.15	.15	.18	.12	16	14	.54	.09	11
22	.29	.21	.21	.15	.15	.18	.12	18	11	.25	.09	8.2
23	.24	.21	.21	.15	.18	.21	.15	20	6.7	.23	.09	6.7
24	.21	.21	.21	.15	.18	.21	.15	9.2	5.7	.28	.09	5.0
25	.21	.21	.21	.15	.18	.21	.14	4.9	4.3	.23	.09	5.0
26	.21	.21	.21	.15	.18	.21	.14	2.3	1.9	.17	.09	5.5
27	.18	.21	.21	.15	.18	.20	.20	1.6	1.3	.16	.09	8.9
28	.18	.18	.21	.15	.18	.19	.17	2.8	.93	.15	.09	13
29	.18	.18	.21	.14	---	.21	.25	1.7	.73	.15	.12	18
30	.18	.18	.20	.12	---	.21	.20	1.4	.53	.15	.12	23
31	.18	---	.18	.12	---	.21	---	1.2	---	.15	.12	---
TOTAL	281.79	5.65	6.08	4.87	4.46	5.59	5.24	164.19	200.43	9.02	3.43	214.11
MEAN	9.09	.19	.20	.16	.16	.18	.17	5.30	6.68	.29	.11	7.14
MAX	43	.21	.21	.18	.18	.21	.25	21	33	2.1	.18	23
MIN	.18	.18	.18	.12	.12	.15	.12	.13	.15	.15	.09	.12
AC-FT	559	11	12	9.7	8.8	11	10	326	398	18	6.8	425

CAL YR 1984	TOTAL	592.96	MEAN	1.62	MAX	43	MIN	.03	AC-FT	1180
WTR YR 1985	TOTAL	904.86	MEAN	2.48	MAX	43	MIN	.09	AC-FT	1790

WATER-QUALITY RECORDS

PERIOD OF RECORD.--January 1983 to current year.

REMARKS.--Daily conductance and water temperature will be published in subsequent report.

WATER QUALITY DATA, WATER YEARS OCTOBER 1983 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
JAN 1983											
11...	09:15	0.14	--	8.0	170	87	170	3	12	282	820
FEB											
28...	14:30	0.16	1700	14.0	150	74	150	3	11	243	710
JUN											
03...	09:10	0.09	1940	15.5	160	81	160	3	13	255	800
OCT											
26...	14:30	0.08	2180	14.0	--	--	--	--	--	--	--
JAN 1984											
12...	16:40	0.06	2180	4.5	--	--	--	--	--	--	--
12...	16:45	E0.45	--	4.5	180	83	160	3	10	281	850
FEB											
16...	15:35	0.18	2010	7.0	--	--	--	--	--	--	--
APR											
19...	15:00	0.15	2010	17.5	--	--	--	--	--	--	--
19...	16:10	0.15	2010	17.0	180	88	180	3	11	256	880
MAY											
24...	11:45	0.16	2020	22.0	--	--	--	--	--	--	--
JUN											
20...	11:50	0.13	1940	27.0	--	--	--	--	--	--	--
JUL											
10...	14:40	0.04	1850	27.0	--	--	--	--	--	--	--
AUG											
02...	15:45	0.06	1590	27.5	--	--	--	--	--	--	--
22...	10:03	0.9	--	--	88	37	72	2	9.9	139	390
SEP											
14...	18:20	4.5	875	18.5	--	--	--	--	--	--	--
14...	18:30	4.2	875	18.5	72	31	71	2	11	189	230
14...	19:15	4.1	875	18.5	--	--	--	--	--	--	--
15...	16:15	5.6	800	17.0	--	--	--	--	--	--	--
OCT											
02...	15:30	26	750	14.5	--	--	--	--	--	--	--
05...	14:30	41	980	15.0	--	--	--	--	--	--	--
11...	17:10	2.1	1190	17.0	--	--	--	--	--	--	--
NOV											
14...	11:55	0.18	2100	9.0	--	--	--	--	--	--	--
DEC											
11...	14:10	0.22	2010	7.0	--	--	--	--	--	--	--
JAN 1985											
18...	10:40	0.15	2010	4.0	--	--	--	--	--	--	--
FEB											
21...	11:50	0.16	1630	1.0	--	--	--	--	--	--	--
MAR											
06...	13:25	0.14	1760	10.5	--	--	--	--	--	--	--
28...	12:30	0.17	2050	13.5	--	--	--	--	--	--	--
APR											
25...	15:30	0.11	1600	16.5	--	--	--	--	--	--	--
MAY											
30...	15:00	1.0	1750	24.5	--	--	--	--	--	--	--
JUN											
18...	12:30	29	1050	19.0	73	35	96	2	9.8	187	280
JUL											
01...	14:15	0.5	1980	26.0	--	--	--	--	--	--	--
26...	12:10	0.16	2200	23.5	--	--	--	--	--	--	--
AUG											
29...	10:00	0.08	2010	20.0	--	--	--	--	--	--	--
SEP											
26...	09:30	50	1090	12.5	--	--	--	--	--	--	--

E ESTIMATED.

07126200 VAN BREMER ARROYO NEAR MODEL, CO--Continued

WATER QUALITY DATA, WATER YEARS OCTOBER 1983 TO SEPTEMBER 1985

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
JAN 1983 11...	29	1.0	11	1500	2.0	0.56	<0.10	<0.01	70	120
FEB 28...	24	1.0	6.7	1300	1.7	0.55	<0.10	0.03	12	89
JUN 03...	12	1.0	7.6	1400	1.9	0.34	<0.10	<0.01	79	110
JAN 1984 12...	26	1.0	7.9	1500	2.1	--	<0.10	<0.01	34	100
APR 19...	31	1.0	6.3	1500	2.3	0.68	<0.10	0.03	80	100
AUG 22...	15	0.5	7.3	700	0.96	1.7	<0.10	<0.01	23	26
SEP 14...	21	0.5	14	560	0.81	6.7	<0.10	0.02	54	22
JUN 1985 18...	34	0.4	8.0	650	0.91	53	<0.10	0.02	23	5

07126300 PURGATOIRE RIVER NEAR THATCHER, CO

LOCATION.--Lat 37°21'30", long 103°53'44", in sec.10, T.31 S., R.58 W., Las Animas County, Hydrologic Unit 11020010, on right bank 250 ft downstream from county road bridge at gas line crossing, 1.2 mi downstream from Van Bremer Arroyo, and 18 mi southeast of Thatcher.

DRAINAGE AREA.--1,791 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1966 to current year.

REVISED RECORDS.--WDR-CO-84-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,790 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 27 to Dec. 8, Dec. 19-25, Jan. 4-10, Jan. 28 to Feb. 5, Apr. 26 to May 8. Records good except for estimated daily discharges, which are poor. Diversions above station for irrigation of about 30,000 acres. Peak flows regulated to some extent by Trinidad Dam, 52 mi upstream, since January 1975.

AVERAGE DISCHARGE.--10 years (water years 1967-76), 37.9 ft³/s; 27,460 acre-ft/yr, prior to completion of Trinidad Dam; 9 years (water years 1977-85), 84.2 ft³/s; 61,000 acre-ft/yr, subsequent to completion of Trinidad Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,400 ft³/s, July 3, 1981, gage height, 22.0 ft, from rating curve extended above 2,100 ft³/s, on the basis of two slope-area measurements of peak flow; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of July 22, 1954, and May 19, 1955, reached stages of 26.7 and 25.2 ft, respectively, from floodmarks. Flood of June 8, 1965, reached a stage of 23.5 ft, from floodmarks, discharge, 47,700 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,740 ft³/s, at 2000 May 22, gage height, 8.23 ft; minimum daily, 15 ft³/s, June 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	77	39	43	35	23	43	26	74	28	29	20	19
2	63	38	40	31	20	43	26	60	21	31	59	41
3	57	39	40	20	22	40	25	52	21	27	56	30
4	100	37	40	31	23	41	23	45	23	23	47	25
5	114	36	44	40	25	40	26	39	15	19	40	23
6	89	35	47	42	26	39	29	36	29	18	39	29
7	90	36	45	43	27	36	29	70	28	16	35	26
8	88	36	42	40	28	36	27	51	25	19	35	23
9	96	36	40	36	30	38	26	34	25	17	26	25
10	66	36	40	40	33	36	26	26	25	18	26	29
11	50	36	38	25	36	54	25	21	34	22	24	31
12	43	36	37	29	31	58	24	18	52	19	27	206
13	47	36	36	29	40	49	21	20	60	17	28	99
14	44	36	34	26	92	43	20	29	54	17	23	54
15	94	36	41	29	93	40	19	35	42	19	23	45
16	70	35	36	36	114	38	19	25	42	124	34	46
17	63	35	40	40	87	38	18	29	38	72	32	49
18	55	35	44	37	65	38	18	34	48	39	338	43
19	49	35	43	43	51	36	19	47	53	106	82	45
20	46	35	41	43	43	36	18	42	72	114	48	50
21	46	32	42	36	40	34	18	41	56	57	34	66
22	45	30	42	33	40	33	17	1060	47	306	30	55
23	44	31	41	36	42	30	21	681	39	84	28	50
24	44	38	40	34	41	31	22	190	36	66	30	52
25	45	39	40	38	40	29	19	146	32	41	36	46
26	45	38	39	41	44	28	18	118	34	29	34	41
27	44	35	42	42	44	26	78	63	33	24	26	42
28	41	37	38	40	42	26	70	51	31	19	25	46
29	40	40	37	38	---	25	62	46	29	18	26	54
30	40	43	36	34	---	26	100	43	27	19	28	78
31	39	---	35	30	---	26	---	38	---	17	21	---
TOTAL	1874	1086	1243	1097	1242	1136	889	3264	1099	1446	1360	1468
MEAN	60.5	36.2	40.1	35.4	44.4	36.6	29.6	105	36.6	46.6	43.9	48.9
MAX	114	43	47	43	114	58	100	1060	72	306	338	206
MIN	39	30	34	20	20	25	17	18	15	16	20	19
AC-FT	3720	2150	2470	2180	2460	2250	1760	6470	2180	2870	2700	2910

CAL YR 1984 TOTAL 26440 MEAN 72.2 MAX 454 MIN 11 AC-FT 52440
WTR YR 1985 TOTAL 17204 MEAN 47.1 MAX 1060 MIN 15 AC-FT 34120

07126300 PURGATOIRE RIVER NEAR THATCHER, CO.--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1982 to current year

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: December 1982 to current year.
WATER TEMPERATURE: December 1982 to current year.
SUSPENDED SEDIMENT DISCHARGE: May 1983 to current year.

INSTRUMENTATION.--Water-quality monitor since December 1982. Pumping sediment sampler since May 1983.

REMARKS.--Water-quality monitor record is considered fair. There is no record Feb. 24 to Mar. 6. Sediment discharge record is considered fair.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 3,810 microsiemens Dec. 21 1983; minimum daily, 530 microsiemens Apr. 8, 1984.
WATER TEMPERATURE: Maximum, 31.0° C Aug. 15, 1984; minimum, 0.0° C on many days during winter months.
SEDIMENT CONSCENTRATION: Maximum daily, 31,600 mg/L May 22,1985; minimum daily, 25 mg/L July 23-24, 1983.
SEDIMENT LOAD: Maximum daily, 250,000 tons June 6, 1983; minimum daily, 0.74 tons July 7, 1984.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 3,780 microsiemens Feb. 4; minimum daily, 1070 microsiemens May 8.
WATER TEMPERATURE: Maximum, 28.5° C June 8, July 10-11; minimum, 0.0° C on many days during winter months.
SEDIMENT CONSCENTRATION: Maximum daily, 31,600 mg/L May 22; minimum daily, 41 mg/L Aug. 29.
SEDIMENT LOAD: Maximum daily, 200,000 tons May 22; minimum daily, 2.2 tons Apr. 20.

WATER QUALITY DATA, OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)
OCT											
03...	12:30	55	--	15.0	230	140	160	2	6.4	189	1200
10...	13:25	61	1980	15.5	--	--	--	--	--	--	--
DEC											
11...	11:55	40	2840	2.5	--	--	--	--	--	--	--
19...	13:45	36	--	1.0	310	230	250	3	4.6	247	2000
JAN											
08...	13:20	39	3150	1.5	--	--	--	--	--	--	--
31...	13:10	41	3150	0.0	--	--	--	--	--	--	--
FEB											
14...	14:25	129	2300	0.0	--	--	--	--	--	--	--
MAR											
22...	12:45	33	--	10.0	270	190	230	3	5.0	188	1700
APR											
25...	11:30	19	2640	14.0	--	--	--	--	--	--	--
MAY											
09...	14:10	33	1200	21.0	--	--	--	--	--	--	--
23...	13:30	411	2200	15.5	--	--	--	--	--	--	--
24...	12:45	170	1350	19.0	--	--	--	--	--	--	--
JUN											
05...	14:00	14	2600	19.5	220	150	190	2	6.5	164	1400
JUL											
11...	13:00	22	2790	25.0	220	160	200	3	6.4	130	1600
24...	15:20	61	2350	25.0	--	--	--	--	--	--	--
AUG											
29...	11:50	24	2840	23.0	--	--	--	--	--	--	--
SEP											
03...	12:30	26	3040	21.0	--	--	--	--	--	--	--
26...	12:45	39	2890	13.5	--	--	--	--	--	--	--
26...	15:30	39	2890	13.5	260	180	180	2	5.9	164	1500

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
OCT										
03...	27	0.5	7.9	1900	2.9	315	--	--	60	10
DEC										
19...	38	0.5	8.8	3000	4.4	317	0.36	0.01	130	70
MAR										
22...	35	0.4	7.6	2600	3.5	231	<0.10	<0.01	80	40
JUN										
05...	30	0.4	11	2100	3.0	82	<0.10	0.23	20	40
JUL										
11...	24	0.5	5.5	2300	3.3	143	--	--	20	10
SEP										
26...	30	0.5	7.3	2300	3.3	252	<0.10	0.03	240	30

07126300 PURGATOIRE RIVER NEAR THATCHER, CO.--Continued

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)
MAR								
22...	12:45	<66	1.5	<29	1.2	<33	1.4	17
JUL								
11...	13:00	<50	0.7	<26	0.9	<30	1.0	11

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
03...	10:45	57	219	34	--
10...	13:30	61	11600	1920	--
NOV					
01...	13:00	40	64	6.9	--
DEC					
11...	12:00	40	108	12	--
19...	15:25	36	84	8.2	--
JAN					
08...	14:45	41	135	15	--
22...	13:50	29	93	7.3	--
31...	14:20	41	73	8.1	--
FEB					
14...	14:30	129	576	201	97
22...	12:00	42	131	15	--
MAR					
06...	16:00	37	45	4.5	--
07...	14:30	37	41	4.1	--
22...	10:15	33	54	4.8	--
APR					
11...	12:50	26	47	3.3	--
25...	12:45	19	69	3.5	--
MAY					
09...	14:00	33	806	73	99
23...	15:00	411	11900	13200	91
23...	16:45	396	9610	10300	97
24...	12:40	170	2130	978	98
24...	13:45	168	1820	826	98
JUN					
05...	13:00	14	65	2.4	--
12...	10:15	45	127	15	--
18...	09:25	51	201	28	--
25...	09:45	29	141	11	--
JUL					
01...	11:00	29	77	6.0	--
11...	14:40	22	38	2.3	--
24...	15:05	61	775	128	99
31...	12:00	14	95	3.6	--
AUG					
07...	12:30	34	130	12	--
14...	10:00	24	130	8.4	--
23...	09:15	26	136	9.5	--
28...	09:30	24	56	3.6	--
29...	12:30	12	31	0.96	--
SEP					
03...	12:55	26	90	6.3	--
11...	10:05	28	97	7.3	--
18...	09:55	46	99	12	--
26...	15:30	39	89	9.3	--

07126300 PURGATOIRE RIVER NEAR THATCHER, CO.--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25 DEG. C, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2100	3280	3490	3150	3480	---	2730	2000	2190	2610	2630	3030
2	2170	3280	3640	3130	3590	---	2690	1710	2400	2790	2730	3000
3	2320	3280	3440	3180	3620	---	2640	1770	2540	2850	2420	3040
4	2410	3300	3540	3150	3780	---	2720	1970	2580	2950	1740	3120
5	2300	3320	3530	3210	3650	---	2790	1840	2570	2760	1680	2850
6	2260	3330	3620	3250	3320	---	2800	1870	2630	2610	2170	3040
7	2450	3320	3640	3040	3260	2790	2770	1780	2590	2590	2350	3110
8	2770	3340	3550	3100	3190	2820	2760	1070	3000	2590	2460	3050
9	2430	3350	3360	3200	3130	2850	2800	1140	2920	2670	2580	2850
10	2430	3420	3210	3350	3010	2800	2790	1580	2740	2640	2670	2780
11	2700	3380	3400	3390	2920	2680	2660	1730	2790	2660	2540	2740
12	2760	3360	3470	3360	2830	2160	2580	1740	2760	2460	2770	2690
13	3110	3320	3400	3370	2840	2020	2600	1890	2520	2450	2800	2400
14	3260	3320	3340	3630	2100	2220	2590	1890	2330	2450	2700	2650
15	3080	3320	3410	3550	1720	2340	2690	2160	2080	2500	2620	2930
16	2470	3360	3340	3530	1580	2440	2740	2320	2070	2390	2620	2940
17	3060	3370	3240	3520	1610	2500	2750	2290	2030	2290	2740	2960
18	3160	3370	3260	3380	1860	2550	2750	1950	1830	1890	1540	2920
19	3150	3370	3210	3230	2020	2620	2760	1730	1970	1850	1580	2840
20	3230	3380	3410	3230	2380	2700	2780	1690	2460	2100	1760	2990
21	3220	3380	3430	3220	2680	2780	2810	1760	2470	2030	1820	2950
22	3210	3390	3460	3250	3090	2810	2780	1600	2020	1990	2050	2890
23	3250	3390	3360	3350	3090	2880	2730	1610	2140	2050	2410	2810
24	3250	3520	3330	3390	---	2890	2690	1720	2310	1600	2600	2960
25	3240	3570	3520	3250	---	2870	2620	1780	2360	1640	2700	2890
26	3240	3330	3420	3110	---	2820	2600	1910	2470	1720	3020	2920
27	3250	3300	3330	3000	---	2810	1490	1870	2640	1960	3130	2900
28	3280	3390	3120	2950	---	2840	1390	1800	2630	2110	3070	2920
29	3320	3330	3150	2970	---	2880	1880	1870	2580	2250	2850	2860
30	3310	3340	3240	3100	---	2820	2000	1980	2710	2460	2830	2900
31	3320	---	3240	3110	---	2780	---	2060	---	2570	3010	---
MEAN	2890	3360	3390	3250	2820	2670	2580	1810	2440	2340	2470	2900

WTR YR 1985 MEAN 2740 MAX 3780 MIN 1070

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	13.0	10.0	10.0	9.0	2.0	.5	2.0	.5	.0	.0	---	---
2	16.5	11.5	11.5	8.0	1.5	.5	1.0	.5	.5	.0	---	---
3	15.0	14.0	11.5	8.0	.5	.5	1.0	.5	.5	.0	---	---
4	16.0	13.5	10.5	8.0	1.0	.5	1.0	.0	.5	.0	---	---
5	15.5	12.5	9.5	7.0	1.0	.5	1.0	.0	.5	.0	---	---
6	16.0	14.0	8.5	7.0	.5	.5	1.5	.0	.5	.0	---	---
7	16.5	13.5	9.5	6.0	1.0	.5	2.0	.5	1.0	.0	9.0	5.5
8	16.5	14.0	9.0	6.5	1.0	.5	2.0	.5	1.0	.0	9.5	6.0
9	17.0	14.0	8.5	6.0	2.5	.5	1.0	.0	1.0	.0	10.0	6.5
10	16.5	13.5	7.5	5.0	2.5	.5	.5	.0	.5	.5	12.0	8.0
11	16.5	13.5	7.0	4.5	3.5	1.5	.0	.0	.5	.0	11.5	9.0
12	16.5	13.5	8.0	5.0	3.0	2.5	.0	.0	1.0	.0	9.5	7.5
13	16.0	14.0	8.0	5.5	2.5	.5	.0	.0	.5	.0	10.0	5.5
14	14.0	10.0	8.5	6.0	1.0	.5	.0	.0	.0	.0	10.5	6.0
15	10.0	7.0	7.0	5.0	2.0	.5	.0	.0	.5	.0	10.0	6.5
16	7.0	4.5	6.5	4.5	2.0	.5	.0	.0	.5	.0	8.5	6.5
17	9.0	4.0	7.0	5.0	2.0	.5	.0	.0	.5	.0	10.5	5.0
18	10.0	7.5	6.5	4.5	1.5	.5	.0	.0	1.5	.0	11.5	6.5
19	9.0	6.5	6.0	3.5	1.0	.5	.0	.0	3.5	.0	9.5	8.0
20	8.0	7.0	5.5	3.0	2.0	.5	.0	.0	7.0	3.0	11.5	7.0
21	8.0	6.0	5.5	2.5	1.5	.5	.0	.0	6.0	4.5	12.5	7.5
22	7.0	6.0	5.0	3.5	1.0	.5	.0	.0	9.5	4.5	10.0	8.0
23	7.5	6.0	5.5	3.5	1.5	.0	.0	.0	7.0	5.5	12.0	7.0
24	7.0	6.0	7.0	5.0	.5	.5	.0	.0	---	---	13.0	8.0
25	9.5	6.0	7.0	4.5	.5	.5	.0	.0	---	---	13.5	9.0
26	10.5	7.0	4.0	1.5	.5	.5	.0	.0	---	---	13.5	9.5
27	12.0	8.5	2.0	.5	4.0	.5	.0	.0	---	---	12.0	9.0
28	11.5	9.0	2.5	.5	6.5	4.0	.0	.0	---	---	12.0	8.5
29	11.5	8.5	2.5	.5	5.5	4.0	.0	.0	---	---	10.0	7.5
30	11.5	9.0	2.0	.5	4.5	3.0	.0	.0	---	---	7.0	5.0
31	12.0	8.0	---	---	3.5	2.5	.0	.0	---	---	9.0	3.5
MONTH	17.0	4.0	11.5	.5	6.5	.0	2.0	.0	9.5	.0	13.5	3.5

07126300 PURGATOIRE RIVER NEAR THATCHER, CO.--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.5	6.5	18.0	13.0	23.5	18.0	25.5	20.5	27.0	24.0	24.5	21.0
2	13.5	8.0	21.0	15.0	23.5	19.0	26.5	21.0	25.5	21.5	23.5	21.0
3	15.0	10.0	22.5	16.5	22.0	18.5	27.0	21.5	24.5	22.0	22.5	19.5
4	14.0	10.5	22.0	18.0	20.0	18.0	26.0	22.5	26.0	21.0	21.5	19.5
5	13.5	8.5	21.5	17.5	19.0	17.0	26.5	22.0	26.5	21.5	23.0	18.5
6	15.0	10.0	20.0	17.5	24.5	18.5	27.0	22.5	27.0	22.0	23.0	18.5
7	15.0	11.0	20.0	16.5	27.0	20.5	27.5	23.5	26.5	22.0	22.5	18.5
8	15.5	11.0	23.0	17.0	28.5	22.5	27.0	24.0	25.0	21.0	22.5	18.5
9	14.0	12.0	21.5	17.5	26.0	23.0	27.5	24.0	25.5	21.0	22.0	18.5
10	17.0	11.5	21.5	17.0	25.0	21.5	28.5	24.0	25.5	20.5	22.5	19.0
11	18.5	13.0	19.5	14.0	25.0	20.0	28.5	24.0	24.5	21.0	21.0	18.5
12	18.0	14.0	18.0	15.0	24.0	20.0	27.5	23.0	25.5	20.0	20.0	17.0
13	19.0	13.5	15.0	10.5	25.0	20.0	27.5	24.0	25.0	21.0	20.0	17.5
14	19.5	13.5	17.5	9.0	24.5	20.5	27.5	23.5	23.0	20.0	22.0	17.5
15	20.5	14.0	20.5	13.5	27.0	21.0	27.5	23.5	23.5	19.5	22.0	18.5
16	18.5	15.5	19.5	16.0	27.5	22.5	26.5	23.0	24.0	19.0	22.5	18.5
17	19.0	14.0	20.0	16.0	25.0	22.5	28.0	22.0	25.0	20.0	23.0	18.5
18	19.0	15.0	22.5	16.0	24.5	21.5	28.0	24.0	23.0	16.0	21.0	18.5
19	17.0	13.5	21.0	17.5	25.5	20.0	26.0	24.0	22.5	17.0	20.0	17.0
20	18.0	13.0	20.0	16.0	26.5	21.0	25.0	22.0	25.0	20.0	18.5	14.5
21	16.0	13.0	18.5	16.5	24.5	22.0	25.0	21.5	25.5	21.0	17.5	13.0
22	13.5	11.5	16.5	9.0	25.0	20.5	23.5	19.5	26.0	21.5	17.0	14.0
23	17.0	10.5	16.5	11.5	26.5	21.5	24.0	20.0	25.5	20.5	16.5	12.5
24	18.0	12.0	20.5	14.5	26.0	22.0	25.0	21.0	26.5	22.5	16.0	13.0
25	16.0	13.5	22.0	18.0	23.5	21.0	24.5	21.0	27.0	22.0	14.5	13.0
26	13.5	10.0	23.0	19.0	23.0	19.5	25.5	21.5	27.5	23.0	16.0	12.0
27	15.0	9.5	24.5	19.0	24.5	18.0	26.0	20.5	26.5	22.0	17.0	13.0
28	14.0	11.5	25.0	19.5	25.5	20.0	26.5	22.0	26.5	22.0	15.5	12.0
29	16.0	12.0	23.5	20.5	25.5	20.5	26.0	23.0	26.5	22.0	12.0	9.0
30	15.0	13.0	24.0	19.0	24.0	21.0	27.5	23.0	26.5	22.5	11.0	8.0
31	---	---	22.0	19.5	---	---	28.0	23.5	26.5	21.5	---	---
MONTH	20.5	6.5	25.0	9.0	28.5	17.0	28.5	19.5	27.5	16.0	24.5	8.0

07126300 PURGATOIRE RIVER NEAR THATCHER, CO.--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	77	167	35	39	62	6.5	43	132	15
2	63	98	17	38	72	7.4	40	154	17
3	57	116	18	39	66	6.9	40	---	16
4	104	359	136	37	56	5.6	40	---	15
5	114	2230	696	36	66	6.4	44	---	17
6	90	887	227	35	51	4.8	47	---	17
7	90	318	77	36	60	5.8	45	---	16
8	88	308	73	36	58	5.6	42	---	13
9	98	815	239	36	104	10	40	---	12
10	67	9920	1760	36	121	12	40	---	15
11	51	2520	395	36	125	12	38	---	11
12	42	446	51	36	122	12	37	60	6.0
13	47	252	32	36	98	9.5	36	56	5.4
14	44	182	22	36	116	11	34	61	5.6
15	96	1250	418	36	126	12	41	59	6.5
16	71	2810	531	35	126	12	36	63	6.1
17	63	718	122	35	122	12	40	50	5.4
18	55	220	33	35	112	11	44	70	8.3
19	49	201	27	35	112	11	43	92	11
20	46	102	13	35	118	11	41	122	14
21	46	98	12	32	110	9.5	42	108	12
22	45	---	13	30	106	8.6	42	77	8.7
23	44	---	10	34	141	13	41	63	7.0
24	44	102	12	38	130	13	40	72	7.8
25	45	84	10	39	136	14	40	88	9.5
26	45	94	11	38	123	13	39	60	6.3
27	44	64	7.6	35	111	10	42	77	8.7
28	41	51	5.6	37	111	11	38	94	9.6
29	40	43	4.6	40	105	11	37	76	7.6
30	40	64	6.9	43	126	15	36	69	6.7
31	39	46	4.8	---	---	---	35	74	7.0
TOTAL	1885	---	5019.5	1089	---	302.6	1243	---	323.2
		JANUARY			FEBRUARY			MARCH	
1	35	---	7.3	23	---	3.8	43	---	16
2	31	---	5.8	20	---	2.7	43	---	14
3	20	---	5.3	22	---	2.7	40	---	11
4	31	---	4.4	23	---	4.0	41	---	11
5	40	---	6.8	25	---	6.1	40	---	10
6	42	---	8.8	26	---	6.4	39	77	8.1
7	43	---	8.9	27	---	7.6	36	56	5.4
8	40	105	11	28	---	6.8	36	50	4.9
9	36	---	11	30	---	7.6	38	78	8.0
10	40	---	12	33	---	8.9	36	70	6.8
11	25	---	5.7	36	---	11	53	137	21
12	29	---	8.2	31	---	8.2	58	214	34
13	29	---	8.3	40	---	16	48	186	24
14	26	103	7.2	94	368	106	43	139	16
15	29	---	10	93	---	71	40	59	6.4
16	36	---	15	115	---	95	38	57	5.8
17	40	---	19	87	---	53	38	79	8.1
18	37	---	18	65	---	31	38	67	6.9
19	43	---	24	51	---	29	36	---	6.1
20	43	---	23	43	---	18	36	---	5.8
21	36	---	18	40	---	14	34	---	4.9
22	33	130	12	40	135	15	33	64	5.7
23	36	---	15	42	---	16	30	70	5.7
24	34	---	16	41	---	15	31	78	6.5
25	38	---	18	40	---	14	29	80	6.3
26	41	---	19	44	---	17	28	91	6.9
27	42	---	16	44	---	15	26	128	9.0
28	40	---	13	42	---	15	26	65	4.6
29	38	---	12	---	---	---	25	58	3.9
30	34	---	11	---	---	---	26	63	4.4
31	30	90	7.3	---	---	---	26	91	6.4
TOTAL	1097	---	377.0	1245	---	615.8	1134	---	293.6

ARKANSAS RIVER BASIN

07126300 PURGATOIRE RIVER NEAR THATCHER, CO.--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	26	61	4.3	74	---	480	28	78	5.9
2	26	52	3.7	60	---	227	21	69	3.9
3	25	60	4.1	52	---	126	21	63	3.6
4	23	---	3.2	45	---	97	23	66	4.1
5	26	---	4.4	39	---	79	15	69	2.8
6	29	---	5.2	36	---	68	29	105	8.2
7	29	---	5.2	70	---	586	28	80	6.0
8	27	---	4.4	51	---	220	25	91	6.1
9	26	---	3.7	34	820	75	25	78	5.3
10	26	---	3.7	26	420	29	25	75	5.1
11	25	63	4.3	21	310	18	34	72	7.5
12	24	63	4.1	18	122	5.9	48	155	21
13	21	64	3.6	20	198	11	61	131	22
14	20	53	2.9	28	252	21	54	153	22
15	19	54	2.8	35	226	16	42	---	15
16	19	60	3.1	25	175	12	42	---	13
17	18	52	2.5	30	---	21	38	---	9.6
18	18	48	2.3	34	---	19	49	168	24
19	19	56	2.9	48	---	43	53	166	24
20	18	46	2.2	41	---	29	73	179	37
21	18	53	2.6	41	---	17	56	205	31
22	17	---	2.7	1040	---	198000	47	244	31
23	21	---	5.9	705	24100	70000	39	183	19
24	22	---	7.0	192	2510	1420	36	125	12
25	19	80	4.1	144	768	305	32	95	8.2
26	18	---	3.4	122	536	181	34	109	10
27	78	---	211	63	328	56	33	122	11
28	70	---	132	51	211	29	31	62	5.2
29	62	---	107	46	148	18	29	70	5.5
30	100	---	1080	43	102	12	27	84	6.1
31	---	---	---	38	86	8.8	---	---	---
TOTAL	889	---	1628.3	3272	---	272229.7	1098	---	385.1

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	29	122	9.6	20	86	4.6	19	53	2.7
2	31	136	11	59	226	46	41	193	38
3	27	123	9.0	56	918	139	30	118	9.8
4	23	110	6.8	48	1160	150	25	172	12
5	19	84	4.3	41	218	24	23	195	12
6	18	80	3.9	39	132	15	29	256	20
7	16	72	3.1	35	115	11	26	218	15
8	19	75	3.8	35	190	19	23	160	9.9
9	17	53	2.4	26	163	11	25	120	8.1
10	18	53	2.6	26	127	8.9	29	234	18
11	22	50	3.0	24	118	7.6	31	117	9.8
12	19	80	4.1	27	96	7.0	207	17800	12000
13	17	67	3.1	28	111	8.4	98	8680	2440
14	17	75	3.4	23	99	6.1	54	1760	273
15	19	50	2.6	22	88	5.2	44	---	39
16	123	15200	6510	34	77	7.1	46	---	26
17	76	10000	2400	32	65	5.6	49	---	27
18	39	630	66	346	28000	32800	43	106	12
19	109	7630	4300	86	10500	2820	45	150	18
20	119	8660	3510	48	1280	174	50	100	13
21	57	2430	374	34	334	31	65	197	38
22	315	---	19900	30	200	16	58	115	18
23	84	---	1430	28	147	11	50	88	12
24	66	1710	318	30	107	8.7	52	112	16
25	44	488	61	36	118	11	47	100	13
26	27	288	21	34	72	6.6	41	100	11
27	24	180	12	26	49	3.4	42	124	14
28	19	97	5.0	25	71	4.8	46	108	13
29	18	94	4.6	26	41	2.9	55	118	18
30	19	104	5.3	28	55	4.2	79	108	23
31	17	87	4.0	21	60	3.4	---	---	---
TOTAL	1467	---	38993.6	1373	---	36372.5	1472	---	15179.3
YEAR	17264		371720.2						

07126320 BURKE ARROYO TRIBUTARY NEAR THATCHER, CO.

LOCATION.--Lat 38°28'35", long 103°58'06", in SW¼SW¼ Sec.13, T.30 S., R.59 W., Las Animas County, Hydrologic Unit 11020010, on right bank, 0.3 mi southwest of mouth, 1.9 mi southwest of Rock Crossing.

DRAINAGE AREA.--4.66 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,108 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. This stream flows as a result of storm events only.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 120 ft³/s, Aug. 22, 1984, gage height, 6.85 ft; no flow most of the time.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3.0 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 4	1615	*7.70	*5.32				

No flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.54	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.55	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MEAN	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MAX	.54	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	1.1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

CAL YR 1984	TOTAL	6.68	MEAN	.02	MAX	5.30	MIN	.00	AC-FT	13.0
WTR YR 1985	TOTAL	.55	MEAN	.00	MAX	.54	MIN	.00	AC-FT	1.1

07126320 BURKE ARROYO TRIBUTARY NEAR THATCHER, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1983 to current year

PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT DISCHARGE: May 1983 to current year.

INSTRUMENTAION.--Automatic pumping sediment sampler since May 1983.

REMARKS.--Records are fair with no flow most of time. Daily water-quality data for specific conductance and temperature will be published in a subsequent report.

EXTREMES FOR PERIOD OF RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily, 1,070 mg/L Aug. 22, 1984; no flow most of time.
SEDIMENT LOADS: Maximum daily, 87 tons Aug. 22, 1984; no flow most of time.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily, 457 mg/L, Oct. 4; no flow most of time.
SEDIMENT LOADS: Maximum daily, 3.9 tons Oct. 4; no flow most of time.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)
OCT										
04...	16:00	0.53	73	8.6	0.8	0.4	0	8.7	26	6.2
04...	16:25	5.8	--	10	1.3	0.7	0.1	5.1	31	11
04...	18:00	1.3	135	19	2.1	0.7	0	5.6	31	29

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
OCT										
04...	2.1	<0.1	3.5	46	0.08	0.08	0.21	0.13	10	<1
04...	9.6	0.1	4.2	61	0.21	2.5	0.20	0.15	92	3
04...	1.7	0.2	4.3	81	0.15	0.4	0.20	0.08	9	<1

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
04...	16:00	0.53	--	--	--
04...	16:25	5.8	3850	60	99
04...	18:00	1.3	1550	5.6	98

ARKANSAS RIVER BASIN

07126320 BURKE ARROYO TRIBUTARY NEAR THATCHER, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	.00	---	---	.00			.00		
2	.00	---	---	.00			.00		
3	.00	---	---	.00			.00		
4	.54	457	3.9	.00			.00		
5	.01	38	.00	.00			.00		
6	.00	---	---	.00			.00		
7	.00	---	---	.00			.00		
8	.00	---	---	.00			.00		
9	.00	---	---	.00			.00		
10	.00	---	---	.00			.00		
11	.00	---	---	.00			.00		
12	.00	---	---	.00			.00		
13	.00	---	---	.00			.00		
14	.00	---	---	.00			.00		
15	.00	---	---	.00			.00		
16	.00	---	---	.00			.00		
17	.00	---	---	.00			.00		
18	.00	---	---	.00			.00		
19	.00	---	---	.00			.00		
20	.00	---	---	.00			.00		
21	.00	---	---	.00			.00		
22	.00	---	---	.00			.00		
23	.00	---	---	.00			.00		
24	.00	---	---	.00			.00		
25	.00	---	---	.00			.00		
26	.00	---	---	.00			.00		
27	.00	---	---	.00			.00		
28	.00	---	---	.00			.00		
29	.00	---	---	.00			.00		
30	.00	---	---	.00			.00		
31	.00	---	---	---			.00		
TOTAL	0.55	---	3.90	0.00			0.00		
		JANUARY			FEBRUARY			MARCH	
1	.00			.00			.00		
2	.00			.00			.00		
3	.00			.00			.00		
4	.00			.00			.00		
5	.00			.00			.00		
6	.00			.00			.00		
7	.00			.00			.00		
8	.00			.00			.00		
9	.00			.00			.00		
10	.00			.00			.00		
11	.00			.00			.00		
12	.00			.00			.00		
13	.00			.00			.00		
14	.00			.00			.00		
15	.00			.00			.00		
16	.00			.00			.00		
17	.00			.00			.00		
18	.00			.00			.00		
19	.00			.00			.00		
20	.00			.00			.00		
21	.00			.00			.00		
22	.00			.00			.00		
23	.00			.00			.00		
24	.00			.00			.00		
25	.00			.00			.00		
26	.00			.00			.00		
27	.00			.00			.00		
28	.00			.00			.00		
29	.00			---			.00		
30	.00			---			.00		
31	.00			---			.00		
TOTAL	0.00			0.00			0.00		

07126325 TAYLOR ARROYO BELOW ROCK CROSSING, NEAR THATCHER, CO

LOCATION.--Lat 37°25'26", long 103°55'09", in SE¼SE¼ sec.17, T.30 S., R.58 W., Las Animas County, Hydrologic Unit 11010010, on left bank 5 mi upstream from mouth, 1.6 mi southeast of Rock Crossing, and 13.5 mi southeast of Thatcher.

DRAINAGE AREA.--48.4 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,982 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: June 28 to July 23, Aug. 4-6. Records good except for estimated daily discharges, which are fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 761 ft³/s Aug. 21, 1984, gage height, 7.94 ft, result of slope-area measurement of peak flow; no flow most of the time.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5.0 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 4	1730	7.9	3.99	Aug. 3	2030	*94	*5.00
May 18	0230	16	4.17				

No flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	8.3	.00
4	1.9	.00	.00	.00	.00	.00	.00	.00	.00	.00	7.8	.00
5	1.3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.12	.00
6	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	4.3	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.53	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.15	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.08	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.01	.00	.67	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.38	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	3.23	.00	.00	.00	.00	.00	.00	5.10	.00	1.07	16.22	.00
MEAN	.10	.00	.00	.00	.00	.00	.00	.16	.00	.03	.52	.00
MAX	1.9	.00	.00	.00	.00	.00	.00	4.3	.00	.67	8.3	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	6.4	.00	.00	.00	.00	.00	.00	10	.00	2.1	32	.00

CAL YR 1984	TOTAL	68.55	MEAN	0.19	MAX	38.0	MIN	.00	AC-FT	130
WTR YR 1985	TOTAL	25.62	MEAN	.07	MAX	8.3	MIN	.00	AC-FT	51

07126325 TAYLOR ARROYO BELOW ROCK CROSSING NEAR THATCHER, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORDS.--March 1983 to current year.

PERIOD OF DAILY RECORD.--March 1983 to current year.

INSTRUMENTATION.--Automatic pumping sediment sampler since Aug. 5, 1983.

REMARKS.--Records are fair with no flow most of time. Daily water-quality data for specific conductance and temperature will be published in a subsequent report.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily, 15,300 mg/L Aug. 22, 1984; no flow most of time.
SEDIMENT LOADS: Maximum daily, 2,400 tons Aug. 22, 1984; no flow most of time.

EXTREMES FOR CURRENT YEAR .--
SEDIMENT CONCENTRATIONS: Maximum daily, 1,950 mg/L Aug. 4; no flow most of time.
SEDIMENT LOADS: Maximum daily, 278 tons Aug. 3; no flow most time.

WATER QUALITY DATA, OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
MAY											
23...	11:30	0.01	2370	20.0	--	--	--	--	--	--	--
JUL											
23...	19:00	2.2	--	--	300	63	63	0.9	14	48	970
25...	10:10	<0.01	1700	22.5	--	--	--	--	--	--	--

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAY										
23...	--	--	--	--	--	--	--	--	--	--
JUL										
23...	6.2	0.5	6.4	1500	2.4	11	1.90	0.01	7	31
25...	--	--	--	--	--	--	--	--	--	--

SUSPENDED SEDIMENT DISCHARGE,OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAY					
23...	11:30	0.01	29	0.0	76
JUL					
23...	18:45	2.4	79	0.51	--
23...	19:00	2.2	63	0.37	--
24...	08:35	0.24	11	0.01	--
25...	09:50	0.01	10	0.0	--

07126325 TAYLOR ARROYO BELOW ROCK CROSSING NEAR THATCHER, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	.00	---	---	.00			.00		
2	.00	---	---	.00			.00		
3	.00	---	---	.00			.00		
4	1.9	217	3.2	.00			.00		
5	1.3	188	.97	.00			.00		
6	.03	---	---	.00			.00		
7	.00	---	---	.00			.00		
8	.00	---	---	.00			.00		
9	.00	---	---	.00			.00		
10	.00	---	---	.00			.00		
11	.00	---	---	.00			.00		
12	.00	---	---	.00			.00		
13	.00	---	---	.00			.00		
14	.00	---	---	.00			.00		
15	.00	---	---	.00			.00		
16	.00	---	---	.00			.00		
17	.00	---	---	.00			.00		
18	.00	---	---	.00			.00		
19	.00	---	---	.00			.00		
20	.00	---	---	.00			.00		
21	.00	---	---	.00			.00		
22	.00	---	---	.00			.00		
23	.00	---	---	.00			.00		
24	.00	---	---	.00			.00		
25	.00	---	---	.00			.00		
26	.00	---	---	.00			.00		
27	.00	---	---	.00			.00		
28	.00	---	---	.00			.00		
29	.00	---	---	.00			.00		
30	.00	---	---	.00			.00		
31	.00	---	---	---			.00		
TOTAL	3.23	---	4.17	0.00			0.00		
		JANUARY			FEBRUARY			MARCH	
1	.00			.00			.00		
2	.00			.00			.00		
3	.00			.00			.00		
4	.00			.00			.00		
5	.00			.00			.00		
6	.00			.00			.00		
7	.00			.00			.00		
8	.00			.00			.00		
9	.00			.00			.00		
10	.00			.00			.00		
11	.00			.00			.00		
12	.00			.00			.00		
13	.00			.00			.00		
14	.00			.00			.00		
15	.00			.00			.00		
16	.00			.00			.00		
17	.00			.00			.00		
18	.00			.00			.00		
19	.00			.00			.00		
20	.00			.00			.00		
21	.00			.00			.00		
22	.00			.00			.00		
23	.00			.00			.00		
24	.00			.00			.00		
25	.00			.00			.00		
26	.00			.00			.00		
27	.00			.00			.00		
28	.00			.00			.00		
29	.00			---			.00		
30	.00			---			.00		
31	.00			---			.00		
TOTAL	0.00			0.00			0.00		

07126325 TAYLOR ARROYO BELOW ROCK CROSSING NEAR THATCHER, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	.00			.00	---	---	.00		
2	.00			.00	---	---	.00		
3	.00			.00	---	---	.00		
4	.00			.00	---	---	.00		
5	.00			.00	---	---	.00		
6	.00			.00	---	---	.00		
7	.00			.00	---	---	.00		
8	.00			.00	---	---	.00		
9	.00			.00	---	---	.00		
10	.00			.00	---	---	.00		
11	.00			.00	---	---	.00		
12	.00			.00	---	---	.00		
13	.00			.00	---	---	.00		
14	.00			.00	---	---	.00		
15	.00			.00	---	---	.00		
16	.00			.00	---	---	.00		
17	.00			.00	---	---	.00		
18	.00			4.3	183	3.8	.00		
19	.00			.53	---	.21	.00		
20	.00			.03	74	.01	.00		
21	.00			.15	83	.06	.00		
22	.00			.08	---	.03	.00		
23	.00			.01	66	.00	.00		
24	.00			.00	---	---	.00		
25	.00			.00	---	---	.00		
26	.00			.00	---	---	.00		
27	.00			.00	---	---	.00		
28	.00			.00	---	---	.00		
29	.00			.00	---	---	.00		
30	.00			.00	---	---	.00		
31	---			.00	---	---	---		
TOTAL	0.00			5.10	---	4.11	0.00		
		JULY			AUGUST			SEPTEMBER	
1	.00	---	---	.00	---	---	.00		
2	.00	---	---	.00	---	---	.00		
3	.00	---	---	8.3	1730	278	.00		
4	.00	---	---	7.8	1950	101	.00		
5	.00	---	---	.12	65	.02	.00		
6	.00	---	---	.00	---	---	.00		
7	.00	---	---	.00	---	---	.00		
8	.00	---	---	.00	---	---	.00		
9	.00	---	---	.00	---	---	.00		
10	.00	---	---	.00	---	---	.00		
11	.00	---	---	.00	---	---	.00		
12	.00	---	---	.00	---	---	.00		
13	.00	---	---	.00	---	---	.00		
14	.00	---	---	.00	---	---	.00		
15	.00	---	---	.00	---	---	.00		
16	.00	---	---	.00	---	---	.00		
17	.00	---	---	.00	---	---	.00		
18	.00	---	---	.00	---	---	.00		
19	.00	---	---	.00	---	---	.00		
20	.00	---	---	.00	---	---	.00		
21	.00	---	---	.00	---	---	.00		
22	.00	---	---	.00	---	---	.00		
23	.67	36	.29	.00	---	---	.00		
24	.38	22	.03	.00	---	---	.00		
25	.02	6	.00	.00	---	---	.00		
26	.00	---	---	.00	---	---	.00		
27	.00	---	---	.00	---	---	.00		
28	.00	---	---	.00	---	---	.00		
29	.00	---	---	.00	---	---	.00		
30	.00	---	---	.00	---	---	.00		
31	.00	---	---	.00	---	---	---		
TOTAL	1.07	---	0.32	16.22	---	379.02	0.00		
YEAR	25.62		387.62						

07126390 LOCKWOOD CANYON CREEK NEAR THATCHER, CO

LOCATION.--Lat 37°29'40", long 103°50'12", in SE¼NW¼ sec.30, T.29 S., R.57 W., Las Animas County, Hydrologic Unit 11020010, on right bank, 0.4 mi downstream from Sharp Ranch, 5.5 mi upstream from mouth, and 16 mi southeast of Thatcher.

DRAINAGE AREA.--41.4 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,815 ft above National Geodetic Vertical Datum of 1929, from topographic map

REMARKS.--Estimated daily discharges for 1983 water year: Apr. 25 to June 6; for 1984 water year: Nov. 27 to Mar. 10, Apr 13-17, June 18; for 1985 water year: Feb. 3-6. Records fair except for periods of estimated daily discharges and those above about 10 ft^3/s, which are poor.

EXTREMES FOR PERIOD APRIL TO SEPTEMBER 1983.--Peak discharges greater than base discharge of 2.0 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 22	0930	*744	*8.56	Aug. 13	1730	6.9	4.64
June 27	2230	69	5.68				

No flow many days.

EXTREMES FOR 1984 WATER YEAR.--Peak discharges greater than base discharge of 2.0 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 31	1030	162	6.38	Aug. 22	2100	a*530	b*7.93

No flow many days.
a-On basis of slope-area measurement of peak flow.
b-From floodmark.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2.0 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 5	0830	*0.78	*4.30				

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	.30	.20	.61	.00	.00
2							---	.25	.07	.48	.00	.00
3							---	.30	.07	.37	.00	.00
4							---	.25	.07	.26	.00	.00
5							---	.20	.07	.15	.00	.00
6							---	.10	3.0	.09	.00	.00
7							---	.10	.12	.06	.00	.00
8							---	.10	.08	.04	.00	.00
9							---	.10	.11	.04	.00	.00
10							---	.10	.07	.04	.00	.00
11							---	.10	.06	.03	.00	.00
12							---	.10	.04	.03	.00	.00
13							---	.10	.13	.03	.99	.00
14							---	.20	.14	.03	1.0	.00
15							---	.10	.07	.03	.11	.00
16							---	.10	.06	.03	.03	.00
17							---	.10	.05	.03	.02	.00
18							---	.10	.04	.03	.02	.00
19							---	.10	.03	.02	.01	.00
20							---	.24	.02	.01	.01	.00
21							.73	.30	.02	.01	.02	.00
22							264	.22	.02	.01	.02	.00
23							186	.10	.02	.01	.02	.00
24							13	.10	.02	.01	.02	.00
25							1.0	.10	.02	.01	.01	.00
26							.70	.10	3.0	.03	.01	.00
27							.60	.10	5.3	.03	.01	.00
28							.52	.10	7.0	.02	.00	.00
29							.47	.10	1.2	.01	.00	.00
30							.40	.10	.78	.01	.00	.00
31							---	.10	---	.00	.00	---
TOTAL							---	4.46	21.88	2.56	2.30	.00
MEAN							---	.14	.73	.08	.07	.00
MAX							---	.30	7.0	.61	1.0	.00
MIN							---	.10	.02	.00	.00	.00
AC-FT							---	8.8	43	5.1	4.6	.00

07126390 LOCKWOOD CANYON CREEK NEAR THATCHER, CO--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.30	.01	.02	.02	3.6	.08	.03	.00	.00	.01
2	.00	.00	.40	.01	.02	.02	1.4	.10	.03	.00	.00	.02
3	.00	.00	.50	.01	.02	.02	1.2	.10	.03	.00	.00	.02
4	.00	.00	.40	.01	.02	.02	.96	.08	.04	.00	.00	.01
5	.00	.00	.30	.01	.02	.02	.85	.17	.03	.00	.00	.01
6	.00	.00	.26	.01	.02	.02	.77	.15	.03	.00	.00	.01
7	.00	.00	.23	.01	.02	.02	.65	.14	.03	.00	.00	.00
8	.00	.00	.19	.01	.02	.02	.63	.14	.03	.00	.00	.00
9	.00	.01	.17	.01	.02	.02	.53	.12	.03	.00	.00	.00
10	.00	.02	.15	.01	.02	.02	.40	.09	.03	.00	.00	.00
11	.00	.02	.15	.01	.02	.18	.32	.02	.03	.01	.00	.00
12	.00	.01	.16	.01	.02	.37	.25	.02	.02	.00	.00	.00
13	.00	.01	.17	.01	.02	.45	.20	.02	.02	.00	.00	.00
14	.00	.01	.14	.01	.02	.49	.17	.02	.01	.00	.00	.00
15	.00	.02	.10	.01	.02	.49	.14	.03	.01	.00	.00	.00
16	.00	.05	.08	.01	.02	.45	.11	.03	.03	.01	.00	.02
17	.00	.05	.06	.01	.02	.45	.09	.07	.02	.00	.00	.02
18	.00	.01	.04	.01	.02	.57	.07	.09	.02	.00	.00	.02
19	.00	.21	.04	.01	.02	.55	.02	.12	.02	.00	.00	.01
20	.00	.28	.03	.01	.02	.55	.04	.13	.01	.00	.00	.00
21	.00	.36	.02	.01	.02	.52	.10	.10	.01	.00	.00	.00
22	.00	.43	.01	.01	.02	.51	.06	.09	.01	.00	33	.00
23	.00	.41	.01	.01	.02	.57	.04	.07	.01	.00	7.1	.00
24	.00	.38	.01	.01	.02	.57	.04	.06	.01	.00	.11	.00
25	.00	.41	.01	.01	.02	.60	.04	.06	.01	.00	.02	.00
26	.00	.55	.01	.02	.02	.57	.03	.08	.00	.00	.02	.00
27	.00	.40	.01	.02	.02	.60	.04	.08	.00	.00	.01	.00
28	.00	.30	.01	.02	.02	.63	.03	.05	.00	.00	.01	.00
29	.00	.20	.01	.02	.02	.55	.10	.04	.00	.00	.01	.00
30	.00	.25	.01	.02	---	5.0	.11	.06	.00	.00	.01	.00
31	.00	---	.01	.02	---	33	---	.05	---	.00	.01	---
TOTAL	.00	4.39	3.99	.37	.58	47.87	12.99	2.46	.55	.02	40.30	.15
MEAN	.00	.15	.13	.01	.02	1.54	.43	.08	.02	.00	1.30	.00
MAX	.00	.55	.50	.02	.02	33	3.6	.17	.04	.01	33	.02
MIN	.00	.00	.01	.01	.02	.02	.02	.02	.00	.00	.00	.00
AC-FT	.00	8.7	7.9	.7	1.2	95	26	4.9	1.1	.04	80	.3

WTR YR 1984 TOTAL 113.67 MEAN .31 MAX 33 MIN .00 AC-FT 225

07126390 LOCKWOOD CANYON CREEK NEAR THATCHER, CO--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.12	.04	.01	.01	.03	.02	.04	.01	.00	.00	.00
2	.00	.10	.03	.01	.01	.03	.02	.01	.01	.00	.00	.00
3	.01	.03	.02	.01	.01	.08	.02	.01	.01	.00	.00	.00
4	.02	.03	.02	.02	.01	.07	.02	.01	.01	.00	.00	.00
5	.23	.03	.02	.02	.01	.05	.03	.01	.01	.00	.00	.00
6	.04	.03	.01	.02	.01	.05	.02	.01	.01	.00	.00	.00
7	.02	.03	.02	.01	.01	.07	.02	.02	.01	.00	.00	.00
8	.02	.04	.01	.01	.01	.03	.02	.01	.01	.00	.00	.00
9	.02	.04	.02	.03	.02	.03	.02	.01	.01	.00	.00	.00
10	.02	.03	.02	.02	.01	.03	.02	.01	.01	.00	.00	.00
11	.02	.04	.02	.01	.01	.06	.02	.01	.01	.00	.00	.00
12	.02	.04	.02	.01	.01	.09	.02	.03	.01	.00	.00	.00
13	.02	.04	.03	.01	.01	.06	.02	.14	.01	.00	.00	.00
14	.03	.03	.02	.02	.01	.04	.02	.06	.01	.00	.00	.00
15	.03	.03	.02	.02	.02	.04	.02	.03	.01	.00	.00	.00
16	.07	.02	.03	.02	.01	.04	.02	.01	.01	.00	.00	.00
17	.11	.02	.02	.02	.01	.07	.02	.03	.01	.00	.00	.00
18	.12	.02	.01	.03	.01	.07	.02	.08	.01	.00	.00	.00
19	.12	.03	.01	.03	.02	.07	.02	.03	.01	.00	.00	.00
20	.12	.03	.01	.02	.02	.07	.01	.02	.01	.00	.00	.00
21	.11	.02	.02	.02	.02	.05	.01	.03	.01	.00	.00	.00
22	.11	.02	.01	.02	.04	.05	.02	.08	.01	.00	.00	.00
23	.11	.02	.01	.02	.08	.05	.06	.02	.01	.00	.00	.00
24	.11	.06	.01	.02	.05	.07	.03	.01	.01	.00	.00	.00
25	.12	.08	.01	.03	.09	.09	.02	.01	.01	.00	.00	.00
26	.12	.09	.01	.03	.06	.03	.03	.01	.01	.00	.00	.00
27	.12	.09	.03	.03	.06	.02	.07	.01	.01	.00	.00	.00
28	.12	.07	.04	.03	.03	.01	.04	.01	.01	.00	.00	.00
29	.12	.10	.02	.02	---	.01	.14	.01	.00	.03	.00	.00
30	.12	.05	.01	.02	---	.02	.08	.01	.00	.01	.00	.00
31	.12	---	.01	.01	---	.02	---	.01	---	.00	.00	---
TOTAL	2.32	1.38	.58	.60	.67	1.50	.90	.79	.28	.04	.00	.00
MEAN	.07	.05	.02	.02	.02	.05	.03	.02	.01	.00	.00	.00
MAX	.23	.12	.04	.03	.09	.09	.14	.14	.01	.03	.00	.00
MIN	.00	.02	.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
AC-FT	4.6	2.7	1.2	1.2	1.3	3.0	1.8	1.6	.6	.08	.00	.00

CAL YR 1984	TOTAL	109.57	MEAN	.30	MAX	33	MIN	.00	AC-FT	217
WTR YR 1985	TOTAL	9.06	MEAN	.02	MAX	.23	MIN	.00	AC-FT	18

07126390 LOCKWOOD CANYON CREEK NEAR THATCHER, CO--Continued

WATER-QUALITY RECORD

PERIOD OF RECORD.--June 1983 to current year.

REMARKS.--Daily conductance and water temperature will be published in subsequent report.

WATER QUALITY DATA, WATER YEARS OCTOBER 1983 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
JUN 1983											
02...	16:00	0.07	2680	23.5	320	130	180	2	9.9	189	1400
JAN 1984											
11...	08:10	0.01	--	0.0	360	160	240	3	9.8	297	1600
APR											
18...	13:00	0.1	2660	14.0	300	120	190	2	9.3	228	1400
OCT											
05...	12:00	0.4	2780	13.0	--	--	--	--	--	--	--
DEC											
12...	13:55	0.02	2950	3.5	--	--	--	--	--	--	--
MAR 1985											
26...	10:30	0.04	2950	10.5	--	--	--	--	--	--	--
APR											
24...	14:55	0.04	2550	16.5	--	--	--	--	--	--	--
MAY											
22...	13:30	0.14	2810	16.5	--	--	--	--	--	--	--
JUN											
28...	09:30	0.0	3300	20.5	--	--	--	--	--	--	--

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JUN 1983										
02...	25	0.6	4.1	2200	3.0	0.41	<0.10	E0.02	100	20
JAN 1984										
11...	38	0.8	13	2600	4.2	0.08	<0.10	0.04	60	380
APR										
18...	27	0.6	9.5	2200	3.2	0.63	<0.10	0.02	60	20

E ESTIMATED.

07126415 RED ROCK CANYON CREEK AT MOUTH NEAR THATCHER, CO

LOCATION.--Lat 37°30'54", long 103°43'25", in NW¼SE¼ sec.18, T.29 S., R.56 W., Las Animas County, Hydrologic Unit 11020010, on left bank, 200 ft downstream from Welsh Canyon, 0.3 mi upstream from mouth, and 21 mi east of Thatcher.

DRAINAGE AREA.--48.8 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,510 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except below 3 ft^3/s and those between 10 ft^3/s and 300 ft^3/s, which are poor. Records for specific conductance and water temperature will be published in subsequent reports.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 800 ft^3/s, Aug. 22, 1984, gage height, 8.40 ft, from floodmark, result of slope-area measurement of peak flow; no flow most of time.

EXTREMES FOR PERIOD MAY TO SEPTEMBER 1983.--Peak discharges greater than base discharge of 5.0 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 8	1645	198	6.91	June 28	0745	5.6	5.54
June 9	0030	8.9	5.63	Aug. 13	2000	*274	*7.18

No flow most of time.

EXTREMES FOR 1984 WATER YEAR.--Peak discharges greater than base discharge of 5.0 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
July 15	1900	298	7.25	Aug. 22	2030	582	7.95
Aug. 2	2145	31	5.98	Aug. 22	2115	*800	a*8.40
Aug. 21	2015	414	7.56	Aug. 25	0030	218	6.99

No flow most of time.
a- from slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5.0 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
July 23	1545	11	a5.68	July 29	1700	*30	*a5.96

No flow most of time.
a- from slope-area measurement of peak flow.

07126415 RED ROCK CANYON CREEK AT MOUTH NEAR THATCHER, CO--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								---	.00	.00	.00	.00
2								---	.00	.00	.00	.00
3								---	.00	.00	.00	.00
4								---	.00	.00	.00	.00
5								---	.00	.00	.00	.00
6								---	.00	.00	.00	.00
7								---	.00	.00	.00	.00
8								---	6.2	.00	.00	.00
9								---	2.0	.00	.00	.00
10								---	.01	.00	.00	.00
11								---	.00	.00	.00	.00
12								---	.00	.00	.00	.00
13								---	.00	.00	15	.00
14								---	.00	.00	1.0	.00
15								---	.00	.00	.00	.00
16								---	.00	.00	.00	.00
17								---	.00	.00	.00	.00
18								---	.00	.00	.00	.00
19								---	.00	.00	.00	.00
20								---	.00	.00	.00	.00
21								---	.00	.00	.00	.00
22								---	.00	.00	.00	.00
23								---	.00	.00	.00	.00
24								---	.00	.00	.00	.00
25								---	.00	.00	.00	.00
26								.00	.00	.00	.00	.00
27								.00	.00	.00	.00	.00
28								.00	1.3	.00	.00	.00
29								.00	.01	.00	.00	.00
30								.00	.00	.00	.00	.00
31								.00	---	.00	.00	---
TOTAL								---	9.52	.00	16.00	.00
MEAN								---	.32	.00	.52	.00
MAX								---	6.2	.00	15	.00
MIN								---	.00	.00	.00	.00
AC-FT								---	19	.00	32	.00

07126415 RED ROCK CANYON CREEK AT MOUTH NR THATCHER, CO--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.0
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.4	.10
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.19	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	14	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.71	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	20	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	61	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	22	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	18	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00	14.71	122.59	1.10
MEAN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.47	3.95	.04
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	14	61	1.0
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	.00	29	243	2.2

WTR YR 1984 TOTAL 138.40 MEAN .38 MAX 61 MIN .00 AC-FT 275

07126415 RED ROCK CANYON CREEK AT MOUTH NR THATCHER, CO--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.20	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.50	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.48	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.10	.00	.00	2.7	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.10	.50	.00	3.18	.20	.00
MEAN	.00	.00	.00	.00	.00	.00	.00	.02	.00	.10	.01	.00
MAX	.00	.00	.00	.00	.00	.00	.10	.50	.00	2.7	.20	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.2	.0	.00	6.3	.4	.00

CAL YR 1984	TOTAL	138.40	MEAN	.38	MAX	61	MIN	.00	AC-FT	275
WTR YR 1985	TOTAL	3.98	MEAN	.01	MAX	2.7	MIN	.00	AC-FT	7.9

07126470 CHACUACO CREEK AT MOUTH NEAR TIMPAS, CO

LOCATION.--Lat 37°32'38", long 103°37'54", in SE¼SE¼ Sec. 1, T. 28 S., R. 56 W., Las Animas County, Hydrologic Unit 11020010, at Red Rocks Ranch, 1.5 mi upstream of mouth, 3.3 mi upstream from Bent Canyon Creek, and 21 mi southeast of Timpas.

DRAINAGE AREA.--424 mi²

WATER DISCHARGE RECORDS

PERIOD OF RECORD.--May 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,350 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 6, July 22, 26, 30, Aug. 5. Records good except for estimated daily discharges, which are fair.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of May 19, 1955, and June 17, 1965, reached discharges of 3,170 ft³/s, and 38,900 ft³/s, respectively, at a different site, from slope-area measurements of peak flows.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,840 ft³/s (revised), Aug. 2, 1984, gage height, 9.16 ft from rating curve based on four slope area measurements of peak flow; no flow most of the time.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 4	1800	135	5.36	July 29	2030	96	4.74
July 21	2000	58	4.76	Aug. 2	0700	407	a6.33
July 23	2145	92	5.07	Aug. 3	1930	49	4.31
July 24	0245	*607	*a6.94				

a-from floodmark.
No flow most of time.

REVISIONS.--The maximum discharge for water year 1984 has been revised to 1,840 ft³/s, Aug. 2, 1984, gage height 9.16 ft, from rating curve based on four slope-area measurements of peak flow. This figure supersedes that published in WDR-CO-84-1. The peak discharge of 351 ft³/s, Aug. 21, 1984, gage height, 6.26 ft, was omitted from the report for 1984.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	90	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	32	.00
4	18	.00	.00	.00	.00	.00	.00	.00	.00	.00	8.3	.00
5	10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.40	.00
6	.27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.6	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.07	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	6.7	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	106	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	14	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.69	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	11	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	5.5	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	28.27	.00	.00	.00	.00	.00	.00	.00	.00	146.56	130.70	.00
MEAN	.91	.00	.00	.00	.00	.00	.00	.00	.00	4.73	4.22	.00
MAX	18	.00	.00	.00	.00	.00	.00	.00	.00	106	90	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	56	.00	.00	.00	.00	.00	.00	.00	.00	291	259	.00

CAL YR 1984	TOTAL	296.77	MEAN	.81	MAX	103	MIN	.00	AC-FT	589
WTR YR 1985	TOTAL	305.53	MEAN	.84	MAX	106	MIN	.00	AC-FT	606

07126470 CHACAUCO CREEK NEAR MOUTH NEAR TIMPAS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1983 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED SEDIMENT DISCHARGE: June 1983 to current year.

INSTRUMENTATION.--Automatic pumping sediment sampler since June 1983.

REMARKS.--Estimated daily loads and conscentrations: Oct.5-6, July 22, 25-26, 29-30, and Aug. 4-5. Records are good except those for periods of estimated load and conscentrations, which are fair. No flow for most of year. Daily specific conductance and water temperature will be published in subsequent report.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily, 5,820 mg/l July 24, 1985; minimum daily no flow most of time.
SEDIMENT LOADS: Maximum daily, 7,020 tons Aug. 2, 1984; minimum daily, no flow most of time.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily, 5,820 mg/l July 24; minimum daily, no flow most of time.
SEDIMENT LOADS: Maximum daily, 2,700 tons July 24; minimum daily, no flow most of time.

REVISIONS.--The maximum daily conscentration for water year 1984 has been revised to 4,670 mg/l on Aug.2 1984, and the daily sediment discharges for Aug.21-22 have been revised to 492 and 13 tons respectively, superseding figures published in the report for 1984.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
AUG											
02...	22:30	51	300	18.0	34	6.6	7.1	0.3	4.7	--	71
03...	02:00	43	290	17.5	34	6.7	9.0	0.4	4.5	81	72

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG										
02...	2.3	0.2	5.6	--	--	--	0.57	0.04	55	4
03...	2.8	0.2	5.6	180	0.23	20	0.47	0.05	64	7

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
AUG					
02...	22:30	51	2830	390	98
03...	02:00	43	2370	275	100

07126470 CHACAUCO CREEK NEAR MOUTH NEAR TIMPAS, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	.00	---	---	.00			.00		
2	.00	---	---	.00			.00		
3	.00	---	---	.00			.00		
4	18	2230	512	.00			.00		
5	10	---	87	.00			.00		
6	.27	---	.22	.00			.00		
7	.00	---	---	.00			.00		
8	.00	---	---	.00			.00		
9	.00	---	---	.00			.00		
10	.00	---	---	.00			.00		
11	.00	---	---	.00			.00		
12	.00	---	---	.00			.00		
13	.00	---	---	.00			.00		
14	.00	---	---	.00			.00		
15	.00	---	---	.00			.00		
16	.00	---	---	.00			.00		
17	.00	---	---	.00			.00		
18	.00	---	---	.00			.00		
19	.00	---	---	.00			.00		
20	.00	---	---	.00			.00		
21	.00	---	---	.00			.00		
22	.00	---	---	.00			.00		
23	.00	---	---	.00			.00		
24	.00	---	---	.00			.00		
25	.00	---	---	.00			.00		
26	.00	---	---	.00			.00		
27	.00	---	---	.00			.00		
28	.00	---	---	.00			.00		
29	.00	---	---	.00			.00		
30	.00	---	---	.00			.00		
31	.00	---	---	---			.00		
TOTAL	28.27	---	599.22	0.00			0.00		
		JANUARY			FEBRUARY			MARCH	
1	.00			.00			.00		
2	.00			.00			.00		
3	.00			.00			.00		
4	.00			.00			.00		
5	.00			.00			.00		
6	.00			.00			.00		
7	.00			.00			.00		
8	.00			.00			.00		
9	.00			.00			.00		
10	.00			.00			.00		
11	.00			.00			.00		
12	.00			.00			.00		
13	.00			.00			.00		
14	.00			.00			.00		
15	.00			.00			.00		
16	.00			.00			.00		
17	.00			.00			.00		
18	.00			.00			.00		
19	.00			.00			.00		
20	.00			.00			.00		
21	.00			.00			.00		
22	.00			.00			.00		
23	.00			.00			.00		
24	.00			.00			.00		
25	.00			.00			.00		
26	.00			.00			.00		
27	.00			.00			.00		
28	.00			.00			.00		
29	.00			---			.00		
30	.00			---			.00		
31	.00			---			.00		
TOTAL	0.00			0.00			0.00		

07126470 CHACAUCO CREEK NEAR MOUTH NEAR TIMPAS, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	.00			.00			.00		
2	.00			.00			.00		
3	.00			.00			.00		
4	.00			.00			.00		
5	.00			.00			.00		
6	.00			.00			.00		
7	.00			.00			.00		
8	.00			.00			.00		
9	.00			.00			.00		
10	.00			.00			.00		
11	.00			.00			.00		
12	.00			.00			.00		
13	.00			.00			.00		
14	.00			.00			.00		
15	.00			.00			.00		
16	.00			.00			.00		
17	.00			.00			.00		
18	.00			.00			.00		
19	.00			.00			.00		
20	.00			.00			.00		
21	.00			.00			.00		
22	.00			.00			.00		
23	.00			.00			.00		
24	.00			.00			.00		
25	.00			.00			.00		
26	.00			.00			.00		
27	.00			.00			.00		
28	.00			.00			.00		
29	.00			.00			.00		
30	.00			.00			.00		
31	---			.00			---		
TOTAL	0.00			0.00			0.00		
		JULY			AUGUST			SEPTEMBER	
1	.00	---	---	.00	---	---	.00		
2	.00	---	---	90	4130	1900	.00		
3	.00	---	---	32	2140	202	.00		
4	.00	---	---	8.3	---	16	.00		
5	.00	---	---	.40	---	.20	.00		
6	.00	---	---	.00	---	---	.00		
7	.00	---	---	.00	---	---	.00		
8	.00	---	---	.00	---	---	.00		
9	.00	---	---	.00	---	---	.00		
10	.00	---	---	.00	---	---	.00		
11	.00	---	---	.00	---	---	.00		
12	.00	---	---	.00	---	---	.00		
13	.00	---	---	.00	---	---	.00		
14	.00	---	---	.00	---	---	.00		
15	.00	---	---	.00	---	---	.00		
16	.00	---	---	.00	---	---	.00		
17	.00	---	---	.00	---	---	.00		
18	.00	---	---	.00	---	---	.00		
19	.00	---	---	.00	---	---	.00		
20	.00	---	---	.00	---	---	.00		
21	2.6	760	70	.00	---	---	.00		
22	.07	---	.18	.00	---	---	.00		
23	6.7	854	166	.00	---	---	.00		
24	106	5820	2700	.00	---	---	.00		
25	14	---	53	.00	---	---	.00		
26	.69	---	.75	.00	---	---	.00		
27	.00	---	---	.00	---	---	.00		
28	.00	---	---	.00	---	---	.00		
29	11	---	266	.00	---	---	.00		
30	5.5	---	45	.00	---	---	.00		
31	.00	---	---	.00	---	---	---		
TOTAL	146.56	---	3300.93	130.70	---	2118.20	0.00		
YEAR	305.53		6018.35						

07126480 BENT CANYON CREEK AT MOUTH NEAR TIMPAS, CO

LOCATION.-- Lat 37°35'19", long 103°38'51", in SE¼SE¼ sec.23, T.28 S., R.65 W., Las Animas County, Hydrologic Unit 11020010, on left bank 0.5 mi upstream from mouth, 0.6 mi southwest of Rourke Ranch house, 0.9 mi upstream from Iron Canyon, and 17 mi southeast of Timpas.

DRAINAGE AREA.--56.2 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,402 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good. This stream flows only from storm events.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,640 ft^3/s Aug. 21, 1984, gage height, 12.56 ft from floodmark, result of slope-area measurement of peak flow; no flow most of time.

EXTREMES FOR CURRENT YEAR.--No flow for current year.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1983 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED SEDIMENT DISCHARGE: May 1983 to current year.

INSTRUMENTATION.--Automatic pumping sampler since May 1983.

REMARKS.--Records are good. Daily specific conductance and water temperature will be published in subsequent report.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily,48,700 mg/l July 15,1984; minimum daily, no flow most of time.
SEDIMENT LOADS: Maximum daily, 21,100 tons Aug. 22,1984; minimum daily, no flow most of time.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: No flow for year.
SEDIMENT LOADS: No flow for year.

07126485 PURGATOIRE RIVER AT ROCK CROSSING NEAR TIMPAS, CO

LOCATION.--Lat 37°37'10', lon, 103°35'32" in NE¼SE¼ sec.10, T.28 S., R.55 W., Las Animas County, Hydrologic Unit 11020010, at Rock Crossing, 2.1 mi upstream from Minnie Canyon, 2.4 mi downstream from Beaty Canyon, and 17 mi southeast of Timpas.

DRAINAGE AREA.--2,635 Mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,350 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 16, 18-22, 25-27, Jan. 2-3, 6-14, July 16-17. Records good, except for estimated daily discharges, which are poor. Diversions above station for irrigation of about 30,000 acres. Peak flows are regulated to some extent by Trinidad Dam, 92 mi upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,290 ft^3/s, Aug. 21, 1984, gage height 12.60 ft, result of slope-area measurement of peak flow; minimum daily, 10 ft^3/s, July 9, 12, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,990 ft^3/s at 0800 May 23, gage height 10.74 ft, from rating curve extended above about 900 ft^3/s, on the basis of slope-area measurement of peak flow; minimum daily, 10 ft^3/s, July 9, 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83	42	49	33	25	41	28	108	41	21	16	18
2	73	41	44	25	21	44	28	87	34	20	100	14
3	68	41	40	22	23	44	26	74	30	23	80	18
4	74	40	39	30	33	40	25	62	21	22	68	29
5	126	40	36	29	30	40	26	50	21	20	50	21
6	98	40	35	34	36	42	24	45	20	16	36	18
7	81	38	41	36	35	40	27	42	19	13	32	20
8	90	38	41	41	40	39	30	87	30	12	27	22
9	78	38	42	41	40	38	29	57	22	10	27	18
10	86	36	42	35	38	39	28	39	22	13	25	17
11	63	35	41	30	38	38	28	28	22	12	21	21
12	56	35	40	30	42	56	26	26	22	10	20	51
13	47	35	40	30	33	60	25	29	42	14	20	134
14	50	36	39	30	31	50	23	30	54	12	24	73
15	52	36	38	34	70	45	21	24	52	13	22	45
16	86	35	38	28	60	41	22	33	40	14	18	40
17	68	35	36	32	71	39	21	28	40	120	22	38
18	63	35	35	39	66	38	20	28	39	59	131	41
19	57	35	35	34	53	38	20	35	41	36	136	36
20	53	36	34	34	46	35	20	56	47	84	66	36
21	50	36	34	40	46	35	20	42	60	92	42	42
22	49	35	34	39	41	32	20	134	49	179	31	54
23	49	32	34	38	45	31	23	1070	41	120	26	52
24	49	33	34	41	44	31	22	344	34	214	22	46
25	49	39	35	42	44	31	24	164	30	73	21	47
26	49	40	37	36	40	30	25	138	25	42	24	45
27	47	42	40	36	42	28	49	96	25	30	28	39
28	45	39	41	36	40	27	96	65	26	22	24	38
29	45	35	40	38	---	27	89	53	30	20	18	40
30	42	45	38	34	---	27	83	47	25	36	18	50
31	42	---	38	30	---	27	---	45	---	16	18	---
TOTAL	1968	1123	1190	1057	1173	1173	948	3166	1004	1388	1213	1163
MEAN	63.5	37.4	38.4	34.1	41.9	37.8	31.6	102	33.5	44.8	39.1	38.8
MAX	126	45	49	42	71	60	96	1070	60	214	136	134
MIN	42	32	34	22	21	27	20	24	19	10	16	14
AC-FT	3900	2230	2360	2100	2330	2330	1880	6280	1990	2750	2410	2310

CAL YR 1984 TOTAL 26757 MEAN 73.1 MAX 961 MIN 12 AC-FT 53070
WTR YR 1985 TOTAL 16566 MEAN 45.4 MAX 1070 MIN 10 AC-FT 32860

07126485 PURGATOIRE RIVER AT ROCK CROSSING NEAR TIMPAS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORDS.--October 1982 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1983 to current year.
WATER TEMPERATURE: July 1983 to current year.
SUSPENDED SEDIMENT: August 1983 to current year.

INSTRUMENTATION.--Water- quality monitor since July 1983. Automatic pumping sediment sampler since August 1983.

REMARKS.--Water-quality monitor record is considered good. No record Oct. 1-17, 22 to Nov. 15, May 24 to June 4, June 14, and July 2-10, 16-17. Estimated daily sediment discharges: Oct 1-2, 20-30, Nov. 9-15, 18-23, 28-30, Dec. 24-25, Jan. 1, 10-15, 21-22, 24, 29 to Feb. 11, Feb. 20, Mar. 9, 11-21, Apr. 3-11, 13-14, 16-28, May 25-27, 30 to June 4, June 7, 16-17, 24, 30, July 3-10, 12, 18, and Sept. 27. Records fair except those for periods of estimated record, which are poor.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 4,030 microsiemens Feb. 8, 1985; minimum daily, 534 microsiemens Aug. 24, 1984.
WATER TEMPERATURE; Maximum, 34.5° c Aug. 13, 14, 16, 1983; minimum 0.0° on many days during the winter in most years.
SEDIMENT CONCENTRATIONS: Maximum daily, 43,400 mg/l May 23, 1985; minimum daily, 10 mg/l Oct. 25, 1983.
SEDIMENT LOADS: Maximum daily, 152,000 tons May 23, 1985; minimum daily, 0.81 tons July 9, 1984.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 4,030 microsiemens Feb. 8; minimum daily, 1,090 microsiemens Aug. 3.
WATER TEMPERATURE; Maximum, 32.5° c June 6; minimum, 0.0° c many days during the winter
SEDIMENT CONCENTRATIONS: Maximum daily, 43,400 mg/L May 23; minimum daily, 15 mg/l Apr. 1,6.
SEDIMENT LOADS: Maximum daily, 152,000 tons May 23; minimum daily, 0.97 tons Apr. 6.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT											
03...	13:15	64	--	19.0	210	130	140	2	5.3	173	1100
DEC											
21...	10:15	34	3350	1.5	330	220	250	3	4.7	213	2000
JAN											
16...	09:35	31	3500	0.5	--	--	--	--	--	--	--
12...	11:25	40	3610	0.0	--	--	--	--	--	--	--
MAR											
22...	09:25	32	2780	10.0	250	160	220	3	5.2	189	1600
APR											
15...	14:55	21	3420	28.5	--	--	--	--	--	--	--
MAY											
10...	11:25	39	2740	22.0	--	--	--	--	--	--	--
JUN											
05...	12:30	22	2340	22.5	210	120	170	2	6.1	161	1200
JUL											
11...	11:00	12	2810	27.0	250	170	220	3	7.1	114	1600
24...	10:30	285	650	19.5	82	22	32	0.8	8.1	124	270
SEP											
06...	09:40	20	2770	19.0	--	--	--	--	--	--	--
25...	11:30	51	2800	15.0	260	180	180	2	6.1	141	1500

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT										
03...	20	0.5	6.5	1700	2.4	311	<0.10	0.01	50	10
DEC										
21...	37	0.4	7.3	3000	4.2	286	0.11	<0.01	30	50
MAR										
22...	33	0.4	8.4	2400	3.4	219	<0.10	<0.01	40	60
JUN										
05...	27	0.4	12	1800	2.5	109	<0.10	<0.01	30	40
JUL										
11...	28	0.5	4.7	2300	3.6	86	<0.10	<0.01	30	20
24...	7.5	0.3	10	510	0.67	380	0.62	0.04	40	59
SEP										
25...	26	0.5	7.0	2200	3.4	347	<0.10	<0.01	50	10

07126485 PURGATOIRE RIVER AT ROCK CROSSING NEAR TIMPAS, CO--Continued

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)
MAR								
22...	09:25	<61	<0.4	<25	0.4	<29	0.4	15
JUL								
11...	11:00	<53	1.5	<24	1.7	<27	1.8	12

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
03...	10:25	64	148	26	--
19...	11:55	57	765	118	--
NOV					
16...	09:20	35	59	5.6	--
DEC					
21...	10:15	34	103	9.5	--
JAN					
16...	09:45	31	42	36	--
FEB					
12...	11:10	40	33	3.6	--
MAR					
22...	09:25	32	18	1.6	--
APR					
15...	13:00	21	37	2.1	--
15...	14:10	21	49	2.8	--
MAY					
10...	10:25	39	250	26	--
24...	14:05	293	10700	8460	--
28...	15:30	65	902	158	--
JUN					
05...	12:30	22	83	4.9	--
12...	14:30	28	97	7.3	--
15...	09:25	52	186	26	--
18...	16:45	38	119	12	--
19...	12:40	46	123	15	--
25...	13:45	31	102	8.5	--
JUL					
01...	17:00	22	70	4.2	--
11...	11:00	12	55	1.8	--
15...	09:15	12	43	1.4	--
17...	09:45	99	476	127	--
18...	12:20	70	84	16	--
24...	10:30	318	14400	11100	100
30...	16:00	23	221	14	--
AUG					
07...	16:15	31	143	12	--
14...	15:15	25	54	3.6	--
21...	14:00	42	8240	934	--
28...	13:15	24	96	6.2	--
SEP					
04...	10:40	30	160	13	--
06...	10:00	20	77	4.2	--
11...	13:50	20	66	3.6	--
19...	11:10	27	391	28	--
25...	11:30	51	194	27	--

07126485 PURGATOIRE RIVER AT ROCK CROSSING NEAR TIMPAS, CO--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25 DEG. C, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	3160	3300	3550	3140	2990	2060	---	2300	2070	2750
2	---	---	3130	3410	3610	3090	3010	2730	---	---	1810	2780
3	---	---	3190	3220	3720	3180	3010	2680	---	---	1090	2990
4	---	---	3110	3240	3680	3350	3030	2730	---	---	2300	3060
5	---	---	3150	3260	3750	3370	3080	2730	2390	---	3120	2950
6	---	---	3180	3280	3850	3330	3050	2320	2510	---	3310	2790
7	---	---	3260	3240	3950	3310	3000	2480	2700	---	2810	2900
8	---	---	3410	3230	4030	3190	3000	2620	2750	---	2800	3050
9	---	---	3330	3170	3900	3050	2970	2630	2840	---	2300	3050
10	---	---	3320	3360	3950	3040	2950	2740	2930	---	2010	3030
11	---	---	3340	3520	3800	2980	3030	2840	2850	3000	2040	3030
12	---	---	3310	3360	3570	2840	3160	2660	2780	2960	2460	3000
13	---	---	3240	3330	3370	2950	3230	1900	2760	2890	2680	2870
14	---	---	3130	3430	3210	2970	3270	1650	---	3000	2740	2880
15	---	---	3010	3510	3100	2890	3310	1380	2770	2990	2810	2330
16	---	3220	3060	3370	3120	2880	3260	1350	2650	---	3000	2320
17	---	3210	3200	3640	2720	2410	3330	1750	2560	---	2940	2630
18	2370	3190	3240	3530	2360	2430	3410	2090	2420	2740	2770	2410
19	2560	3180	3210	3650	2350	2510	3440	2180	2370	2730	2330	2700
20	2930	3180	3220	3780	2320	2630	3540	2440	2150	2990	1820	2810
21	3040	3180	3240	3730	2320	2740	3570	2070	1990	2130	1660	2770
22	---	3200	3110	3590	2470	2830	3450	2530	1830	2140	1610	2760
23	---	3200	3220	3620	2500	2790	3120	1230	1940	2430	1530	2670
24	---	3190	3270	3480	2490	2810	3210	---	2290	1140	1590	2800
25	---	3190	3380	3460	2760	2830	3320	---	2420	1480	2010	2720
26	---	3170	3320	3410	2850	2900	3370	---	2370	1730	2160	2680
27	---	3140	3340	3390	3130	2950	3400	---	2410	1820	1790	2600
28	---	3120	3360	3430	3210	2980	3470	---	2150	2080	1870	2650
29	---	3220	3410	3470	---	2980	3250	---	2030	2310	2100	2710
30	---	3320	3420	3410	---	3000	1700	---	2190	1690	2440	2690
31	---	---	3370	3520	---	3010	---	---	---	1750	2640	---
MEAN	2730	3190	3250	3430	3200	2950	3160	2250	2440	2320	2280	2780

WTR YR 1985 MEAN 2860 MAX 4030 MIN 1090

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	2.5	.0	1.0	.5	.0	.0	11.0	3.5
2	---	---	---	---	3.0	.0	1.5	.5	.0	.0	10.5	5.5
3	---	---	---	---	.5	.0	.5	.0	.5	.0	11.5	4.5
4	---	---	---	---	2.0	.0	2.5	.0	.0	.0	9.5	2.0
5	---	---	---	---	1.5	.0	5.5	.5	.0	.0	9.5	2.0
6	---	---	---	---	3.0	.0	6.0	.5	.0	.0	10.0	4.5
7	---	---	---	---	2.5	.0	4.0	.5	.0	.0	10.5	4.5
8	---	---	---	---	4.0	.0	2.0	.0	.0	.0	8.5	5.0
9	---	---	---	---	6.0	1.5	1.0	.0	.0	.0	11.5	6.0
10	---	---	---	---	5.0	1.5	.5	.0	.0	.0	14.5	6.5
11	---	---	---	---	4.5	3.0	.5	.0	.0	.0	12.5	8.0
12	---	---	---	---	3.5	2.0	.5	.0	.0	.0	11.5	6.5
13	---	---	---	---	2.0	.0	.5	.0	.0	.0	12.5	5.5
14	---	---	---	---	1.0	.0	.5	.0	.0	.0	13.0	5.0
15	---	---	---	---	2.5	.0	.5	.0	1.5	.0	13.5	6.0
16	---	---	7.5	---	3.5	.0	.5	.0	4.0	.0	11.0	7.0
17	---	---	8.0	4.5	3.0	.0	.5	.0	4.0	.0	14.0	4.5
18	---	---	7.5	3.0	3.0	.0	1.0	.0	4.5	1.5	15.0	6.5
19	7.0	6.0	6.5	1.5	2.0	.0	.5	.0	6.5	.5	12.0	8.0
20	8.0	5.5	7.0	1.5	3.5	.0	.5	.0	9.5	3.0	14.5	6.5
21	7.0	5.0	7.5	2.0	3.5	.5	.5	.0	6.0	3.5	15.5	6.0
22	---	---	6.0	3.0	2.5	.5	.5	.0	9.5	2.5	15.0	7.0
23	---	---	6.5	1.5	5.5	.5	.5	.0	5.0	1.0	15.5	5.0
24	---	---	8.0	4.5	.5	.5	.5	.0	6.5	.0	17.5	6.5
25	---	---	7.5	3.0	1.0	.5	1.0	.0	8.5	1.0	17.0	8.0
26	---	---	3.0	.5	1.0	.5	2.5	.0	9.0	2.0	17.0	9.0
27	---	---	2.5	.0	5.5	.5	3.0	.0	8.5	2.0	15.0	7.5
28	---	---	5.0	.0	9.0	5.0	5.5	.5	9.5	3.5	18.5	6.0
29	---	---	4.5	1.0	5.5	2.5	3.0	.0	---	---	8.5	4.0
30	---	---	3.5	.0	3.5	1.0	.0	.0	---	---	9.5	1.0
31	---	---	---	---	3.0	1.5	.5	.0	---	---	14.5	1.5
MONTH	8.0	5.0	8.0	.0	9.0	.0	6.0	.0	9.5	.0	18.5	1.0

07126485 PURGATOIRE RIVER AT ROCK CROSSING NEAR TIMPAS, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	17.0	5.0	20.5	12.5	26.5	21.0	31.5	18.5	29.0	23.0	28.0	20.0
2	21.0	7.0	23.0	14.5	26.0	21.5	---	19.5	24.0	20.5	26.0	20.5
3	23.0	8.0	24.5	15.5	25.0	21.5	---	17.0	24.0	19.5	26.5	19.5
4	19.0	8.5	22.5	16.5	23.0	20.5	---	19.5	29.0	21.0	24.0	20.0
5	22.0	5.0	25.5	16.5	25.5	19.0	---	---	28.5	22.5	26.0	18.5
6	22.5	6.5	22.5	18.0	32.5	16.5	---	---	29.5	22.0	26.5	17.5
7	20.0	8.5	25.5	16.5	---	17.0	---	---	29.0	21.5	25.5	18.0
8	20.5	8.0	26.0	17.5	31.5	21.5	---	---	29.0	20.5	25.5	17.0
9	20.0	10.5	24.5	18.0	29.0	20.5	---	---	28.5	21.0	25.0	17.5
10	24.0	10.0	24.5	15.0	29.0	19.0	---	---	27.5	19.0	24.5	18.5
11	25.5	11.0	26.0	11.5	27.0	17.0	---	---	27.0	20.5	20.0	18.0
12	22.5	11.5	17.0	13.0	26.5	17.0	---	---	28.0	19.5	25.5	16.5
13	26.5	12.0	13.5	9.5	28.0	.0	---	---	28.0	20.5	20.5	18.0
14	27.0	9.5	24.0	9.0	---	---	---	---	23.5	19.5	23.0	16.5
15	29.0	10.0	29.0	12.0	29.0	---	---	---	26.0	18.0	23.5	17.5
16	24.5	12.5	20.0	15.5	30.5	21.5	---	---	26.5	18.5	24.0	17.5
17	25.0	10.0	24.0	14.5	26.0	21.0	30.0	---	27.5	19.0	24.0	17.5
18	25.5	11.5	31.0	15.5	26.0	20.0	30.5	24.0	26.5	20.0	21.0	18.5
19	20.0	9.0	26.5	17.0	28.0	18.5	29.5	23.0	25.5	20.0	21.5	16.5
20	23.0	6.5	24.5	16.5	29.0	20.0	27.5	22.0	26.5	20.0	18.0	13.0
21	20.5	9.5	20.5	18.0	26.5	21.0	28.5	22.0	27.0	19.5	20.0	12.0
22	15.5	8.5	22.0	17.0	28.0	19.5	24.5	22.0	28.0	20.5	17.5	13.5
23	25.0	7.5	17.5	12.5	29.0	20.0	26.0	21.0	27.5	20.0	18.5	11.5
24	26.0	9.0	20.0	15.5	28.5	21.0	24.0	18.5	27.5	21.0	17.5	12.5
25	13.5	10.5	22.5	18.0	26.0	20.5	25.5	21.0	29.0	20.0	14.0	12.0
26	12.0	8.0	23.5	19.5	25.5	18.0	26.5	21.5	29.0	20.5	18.5	11.5
27	18.5	7.5	25.5	20.5	27.5	16.0	29.0	20.0	28.0	20.0	19.0	12.5
28	15.5	12.5	26.5	20.0	28.5	17.5	28.5	21.0	28.0	20.5	14.5	9.0
29	16.5	12.0	25.5	22.0	28.0	19.0	27.5	21.5	29.5	20.5	9.0	7.0
30	16.5	12.0	25.5	21.0	29.0	19.5	29.0	21.5	30.0	21.0	12.5	6.5
31	---	---	24.0	21.5	---	---	30.5	22.0	29.0	19.5	---	---
MONTH	29.0	5.0	31.0	9.0	32.5	.0	31.5	17.0	30.0	18.0	28.0	6.5
YEAR	32.5	.0										

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	83	---	44	42	64	7.3	49	---	13
2	73	---	34	41	51	5.6	44	---	8.9
3	68	148	27	41	49	5.4	40	57	6.2
4	74	193	39	40	34	3.7	39	57	6.0
5	126	704	240	40	51	5.5	36	46	4.5
6	98	354	94	40	49	5.3	35	79	7.5
7	81	442	97	38	44	4.5	41	72	8.0
8	90	966	235	38	34	3.5	41	37	4.1
9	78	613	129	38	---	3.3	42	69	7.8
10	86	390	91	36	---	3.1	42	67	7.6
11	63	260	44	35	---	3.0	41	110	12
12	56	202	31	35	---	3.0	40	59	6.4
13	47	163	21	35	---	3.8	40	72	7.8
14	50	237	32	36	---	9.7	39	62	6.5
15	52	258	36	36	---	7.8	38	62	6.4
16	86	433	101	35	59	5.6	38	68	7.0
17	68	359	66	35	45	4.3	36	76	7.4
18	63	305	52	35	---	3.8	35	85	8.0
19	57	733	113	35	---	3.3	35	79	7.5
20	53	---	36	36	---	9.7	34	89	8.2
21	50	---	20	36	---	7.3	34	103	9.5
22	49	---	17	35	---	3.3	34	96	8.8
23	49	---	16	32	---	2.6	34	81	7.4
24	49	---	16	33	48	4.3	34	---	7.3
25	49	---	15	39	51	5.4	35	---	7.6
26	49	---	13	40	53	5.7	37	115	11
27	47	---	12	42	64	7.3	40	99	11
28	45	---	10	39	---	5.8	41	87	9.6
29	45	---	9.7	35	---	4.7	40	68	7.3
30	42	---	8.5	45	---	8.5	38	60	6.2
31	42	73	8.3	---	---	---	38	50	5.1
TOTAL	1968	---	1707.5	1123	---	156.1	1190	---	241.6

07126485 PURGATOIRE RIVER AT ROCK CROSSING NEAR TIMPAS, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	33	---	4.1	25	---	1.7	41	28	3.1
2	25	175	12	21	---	1.7	44	29	3.4
3	22	223	13	23	---	1.2	44	24	2.9
4	30	46	3.7	33	---	3.1	40	16	1.7
5	29	39	3.1	30	---	2.0	40	19	2.1
6	34	36	3.3	36	---	3.9	42	23	2.6
7	36	59	5.7	35	---	2.8	40	24	2.6
8	41	41	4.5	40	---	5.4	39	25	2.6
9	41	34	3.8	40	---	5.4	38	---	3.0
10	35	---	3.1	38	---	3.1	39	30	3.2
11	30	---	2.4	38	---	2.6	38	---	2.9
12	30	---	2.4	42	31	3.5	56	---	5.3
13	30	---	2.4	33	35	3.1	60	---	24
14	30	---	2.8	31	32	2.7	50	---	11
15	34	---	4.5	70	86	16	45	---	5.5
16	28	42	3.2	60	91	15	41	---	3.3
17	32	43	3.7	71	168	32	39	---	2.6
18	39	32	3.4	66	197	35	38	---	2.6
19	34	36	3.3	53	216	31	38	---	2.3
20	34	73	6.7	46	---	29	35	---	1.9
21	40	---	8.0	46	214	27	35	---	1.9
22	39	---	6.4	41	136	15	32	21	1.8
23	38	47	4.8	45	86	10	31	32	2.7
24	41	---	4.9	44	59	7.0	31	34	2.8
25	42	40	4.5	44	42	5.0	31	30	2.5
26	36	31	3.0	40	28	3.0	30	47	3.8
27	36	37	3.6	42	20	2.3	28	40	3.0
28	36	48	4.7	40	25	2.7	27	42	3.1
29	38	---	6.2	---	---	---	27	38	2.8
30	34	---	3.7	---	---	---	27	29	2.1
31	30	---	2.4	---	---	---	27	17	1.2
TOTAL	1057	---	143.3	1173	---	272.2	1173	---	116.3
		APRIL			MAY			JUNE	
1	28	15	1.1	108	497	145	41	---	11
2	28	26	2.0	87	418	98	34	---	11
3	26	---	1.4	74	649	130	30	---	8.1
4	25	---	1.0	62	884	148	21	---	4.8
5	26	---	1.4	50	500	67	21	102	5.8
6	24	---	.97	45	328	40	20	105	5.7
7	27	---	1.5	42	239	27	19	---	3.0
8	30	---	8.1	87	661	155	30	113	9.2
9	29	---	5.5	57	219	34	22	139	8.3
10	28	---	3.4	39	210	22	22	169	10
11	28	---	3.0	28	96	7.3	22	110	6.5
12	26	34	2.4	26	69	4.8	22	97	5.8
13	25	---	2.0	29	114	8.9	42	149	17
14	23	---	2.5	30	116	9.4	54	152	22
15	21	37	2.1	24	56	3.6	52	143	20
16	22	---	3.3	33	110	9.8	40	---	9.0
17	21	---	2.3	28	78	5.9	40	---	9.0
18	20	---	1.9	28	55	4.2	39	119	13
19	20	---	1.9	35	146	14	41	102	11
20	20	---	1.6	56	220	33	47	106	13
21	20	---	1.6	42	146	17	60	131	21
22	20	---	1.6	134	1900	687	49	107	14
23	23	---	4.0	1070	43400	125000	41	84	9.3
24	22	---	3.0	344	13200	12300	34	---	8.4
25	24	---	4.5	164	---	2800	30	104	8.4
26	25	---	5.1	138	---	2230	25	77	5.2
27	49	---	32	96	---	954	25	107	7.2
28	96	---	90	65	986	173	26	104	7.3
29	89	277	67	53	387	55	30	94	7.6
30	83	280	63	47	---	22	25	---	4.9
31	---	---	---	45	---	15	---	---	---
TOTAL	948	---	321.17	3166	---	145219.9	1004	---	296.5

07126485 PURGATOIRE RIVER AT ROCK CROSSING NEAR TIMPAS, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	21	70	4.0	16	85	3.7	18	68	3.3
2	20	49	2.6	100	2950	796	14	73	2.8
3	23	---	5.6	80	1500	324	18	150	7.3
4	22	---	4.2	68	570	105	29	150	12
5	20	---	2.7	50	386	52	21	119	6.7
6	16	---	1.9	36	214	21	18	84	4.1
7	13	---	1.4	32	189	16	20	77	4.2
8	12	---	1.3	27	132	9.6	22	76	4.5
9	10	---	1.1	27	120	8.7	18	60	2.9
10	13	---	2.5	25	100	6.8	17	68	3.1
11	12	55	1.8	21	71	4.0	21	49	2.8
12	10	---	1.7	20	74	4.0	51	572	79
13	14	82	3.1	20	59	3.2	134	1800	651
14	12	65	2.1	24	58	3.8	73	9840	1940
15	13	48	1.7	22	86	5.1	45	15100	1830
16	14	---	3.0	18	89	4.3	40	2860	309
17	120	---	810	22	60	3.6	38	519	53
18	59	---	9.2	131	4200	1490	41	445	49
19	36	---	7.0	136	7610	2790	36	344	33
20	84	359	81	66	18000	3210	36	206	20
21	92	2170	539	42	10000	1130	42	234	27
22	179	6000	2900	31	2110	177	54	291	42
23	120	12200	3950	26	354	25	52	255	36
24	214	13600	7860	22	185	11	46	187	23
25	73	6500	1280	21	151	8.6	47	207	26
26	42	1640	186	24	133	8.6	45	238	29
27	30	516	42	28	162	12	39	---	25
28	22	220	13	24	108	7.0	38	225	23
29	20	167	9.0	18	73	3.5	40	212	23
30	36	397	39	18	63	3.1	50	214	29
31	16	99	4.3	18	64	3.1	---	---	---
TOTAL	1388	---	17770.2	1213	---	10249.7	1163	---	5300.7
YEAR	16566		181795.17						

07126500 PURGATOIRE RIVER AT NINEMILE DAM, NEAR HIGBEE, CO

LOCATION.--Lat 37°42'53", long 103°30'38", in NW¼ sec.7, T.27 S., R.54 W., Otero County, Hydrologic Unit 11020010, on left bank at Ninemile Dam, 4 mi southwest of Higbee, and 5.5 mi upstream from Smith Canyon. Prior to Apr. 21, 1978 gage located 850 ft, upstream.

DRAINAGE AREA.--2,752 mi^2.

PERIOD OF RECORD.--October 1924 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1311: 1934(M), 1936(M), 1941-42(M), 1948-49(M). WSP 1731: 1929(M).

GAGE.--Water-stage recorder. Datum of gage is 4,240.59 ft above National Geodetic Vertical Datum of 1929, supplementary adjustment of 1960. See WSP 1711 or 1731 for history of changes prior to Dec. 6, 1956. Dec. 6, 1956 to Apr. 20, 1978, at site 850 ft, upstream.

REMARKS.--Estimated daily discharges: Oct. 28-31, Dec. 3-27, Dec. 29 to Jan. 5, 9-16, Jan. 18 to Feb. 13, May 22, 23. Records fair. Diversions for irrigation of about 32,000 acres above station. Discharge computed by combining discharge of river below Ninemile Dam and Ninemile canal. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--52 years (water years 1925-76), 94.5 ft^3/s; 68,470 acre-ft/yr, prior to completion of Trinidad Dam; 9 years (water years 1977-85), 80.1 ft^3/s; 58,030 acre-ft/yr, subsequent to completion of Trinidad Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 105,000 ft^3/s, estimated, June 18, 1965, gage height, 19.5ft, from floodmarks; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,930 ft^3/s at 1400 May 22, gage height 4.87 ft, minimum daily, 5.0 ft^3/s, Feb. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	39	48	32	5.5	30	38	111	32	18	17	15
2	84	40	45	26	5.0	30	38	102	26	13	88	14
3	65	33	40	25	5.5	30	38	81	28	15	115	12
4	64	28	35	27	5.5	28	36	72	22	18	94	25
5	137	28	30	24	5.5	28	34	55	21	15	60	22
6	121	28	30	19	6.0	28	34	46	22	14	43	17
7	99	28	25	19	6.0	28	34	37	18	11	34	14
8	90	28	35	24	15	28	36	46	24	10	26	15
9	101	30	35	20	20	26	38	61	26	7.4	24	15
10	104	34	34	16	18	26	28	45	22	7.4	28	14
11	81	36	35	12	19	26	24	28	22	7.4	24	13
12	62	36	30	11	22	32	22	22	22	6.7	19	19
13	50	34	28	12	25	45	19	19	34	8.2	19	110
14	44	34	28	12	34	36	18	18	51	11	19	91
15	48	34	30	13	51	34	17	21	54	9.1	24	72
16	82	34	33	13	93	34	14	24	41	7.4	21	51
17	80	34	32	14	93	34	15	30	28	48	18	34
18	67	34	30	14	70	38	14	22	27	72	31	38
19	54	34	34	12	60	38	13	24	44	36	269	32
20	48	34	37	8.0	40	38	13	45	43	70	113	32
21	42	36	37	8.0	36	45	13	49	38	95	56	38
22	40	36	36	8.5	30	45	19	64	62	158	32	40
23	40	32	40	8.5	32	38	17	829	53	190	28	49
24	40	32	26	9.0	30	34	14	369	42	215	26	54
25	42	36	20	9.0	30	40	14	151	38	97	24	52
26	44	38	35	9.5	28	42	18	115	34	59	21	47
27	44	42	42	9.5	28	40	34	100	30	32	24	30
28	43	40	45	9.0	30	40	53	64	28	28	26	21
29	41	32	38	9.0	---	42	91	50	24	24	21	22
30	40	38	37	7.0	---	42	82	35	24	38	17	26
31	40	---	36	6.0	---	40	---	30	---	15	15	---
TOTAL	2018	1022	1066	446.0	843.0	1085	878	2765	980	1355.6	1376	1034
MEAN	65.1	34.1	34.4	14.4	30.1	35.0	29.3	89.2	32.7	43.7	44.4	34.5
MAX	137	42	48	32	93	45	91	829	62	215	269	110
MIN	40	28	20	6.0	5.0	26	13	18	18	6.7	15	12
AC-FT	4000	2030	2110	885	1670	2150	1740	5480	1940	2690	2730	2050

CAL YR 1984 TOTAL 25987.8 MEAN 71.0 MAX 1090 MIN 5.2 AC-FT 51550
WTR YR 1985 TOTAL 14868.6 MEAN 40.7 MAX 829 MIN 5.0 AC-FT 29490

07128500 PURGATOIRE RIVER NEAR LAS ANIMAS, CO

LOCATION.--Lat 38°02'02", long 103°12'00", in NE¼SW¼ sec.23, T.23 S., R.52 W., Bent County, Hydrologic Unit 11020010, on right bank at downstream side of bridge on State Highway 101, 2.3 mi southeast of courthouse in Las Animas, and 4.5 mi upstream from mouth.

DRAINAGE AREA.--3,318 mi^2.

PERIOD OF RECORD.--Streamflow records, May to September 1889, July to October 1909 (gage heights and discharge measurements only), January 1922 to September 1931, July 1948 to current year. Monthly discharge only for some periods, published in WSP 1311. Published as Purgatoire Creek at Las Animas in 1889 and as Purgatory River near Las Animas in 1909. Water-quality data available, November 1963 to September 1965, October 1966 to July 1969.

REVISED RECORDS.--WSP 1241: 1927(M); WDR CO-84-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,871.84 ft above National Geodetic Vertical Datum of 1929. See WSP 1731 for history of changes prior to Oct. 1, 1955. Oct. 1, 1955, to July 11, 1966, at datum 3.00 ft, higher. Supplementary water-stage recorder at site 1.6 mi downstream at different datum July 12 to Nov. 17, 1966. Nov. 18, 1966 to May 4, 1982 at datum 3.1 ft, higher.

REMARKS.--Estimated daily discharges: Dec. 14 to Jan. 5, 9-26, Jan. 29 to Feb. 1, Feb. 16-20. Records good except for estimated daily discharges, which are fair. Flow regulated to some extent since January 1975 by Trinidad Lake near Trinidad upstream. Diversions for irrigation of about 36,000 acres above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--37 years (water years 1923-31, 1949-76), 116 ft^3/s; 84,040 acre-ft/yr, prior to completion of Trinidad Lake; 8 years (water years 1978-85), 75.5 ft^3/s; 54,700 acre-ft/yr, subsequent to completion of Trinidad Lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 70,000 ft^3/s, May 20, 1955, gage height, 20.00 ft, different datum, from rating curve extended above 38,000 ft^3/s; no flow at times in 1924-25, 1927, 1949, 1974.

EXTREMES OUTSIDE PERIOD OF RECORD.--Greatest flood since at least 1860 occurred Oct. 1, 1904.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,990 ft^3/s at 2130 May 23, gage height, 7.27 ft; minimum daily, 2.9 ft^3/s, July 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	42	23	23	25	42	40	40	45	9.1	27	3.2
2	67	55	26	22	36	42	47	50	17	5.0	25	3.1
3	75	62	34	24	38	40	44	43	30	5.3	20	3.0
4	66	58	21	30	40	38	44	19	33	5.3	45	3.4
5	56	53	31	33	36	38	30	13	35	4.4	31	3.5
6	102	53	32	35	36	39	31	43	41	3.8	28	3.5
7	95	47	36	36	37	38	36	41	46	3.3	23	3.5
8	82	39	37	36	37	38	31	40	42	3.1	26	3.4
9	72	41	37	40	34	38	27	24	38	3.1	21	3.6
10	97	42	38	35	34	38	35	35	33	4.0	21	3.2
11	113	44	44	30	39	37	28	15	18	3.7	25	3.2
12	76	39	38	30	36	37	14	42	23	3.8	24	3.8
13	58	40	42	30	35	38	9.4	74	23	3.7	23	3.9
14	69	34	30	30	40	52	9.2	66	14	2.9	20	18
15	70	34	30	35	42	49	9.2	53	19	9.5	26	17
16	66	35	30	40	45	48	8.9	42	11	14	17	10
17	83	43	30	45	45	90	8.5	48	21	21	13	7.2
18	83	37	30	43	45	87	7.0	42	19	20	10	7.1
19	76	34	28	30	45	77	8.8	34	26	24	15	9.7
20	74	35	32	30	50	52	18	34	27	31	62	7.0
21	65	36	34	27	53	69	11	55	20	12	17	8.8
22	51	36	34	30	46	69	8.1	112	13	14	7.6	10
23	48	41	34	33	46	64	10	519	9.1	78	6.6	13
24	61	39	28	37	46	36	13	707	8.1	79	5.6	14
25	56	35	21	34	45	45	18	207	10	94	5.9	16
26	55	62	28	36	44	45	22	99	12	36	6.7	24
27	48	74	49	42	44	40	27	120	9.5	21	4.3	28
28	44	55	35	41	39	35	29	101	8.6	8.5	4.1	36
29	55	61	30	41	---	38	48	71	11	17	7.4	28
30	61	37	30	31	---	32	56	49	6.6	22	6.4	30
31	48	---	25	21	---	21	---	52	---	14	4.1	---
TOTAL	2113	1343	997	1030	1138	1452	728.1	2890	668.9	575.5	577.7	328.1
MEAN	68.2	44.8	32.2	33.2	40.6	46.8	24.3	93.2	22.3	18.6	18.6	10.9
MAX	113	74	49	45	53	90	56	707	46	94	62	36
MIN	41	34	21	21	25	21	7.0	13	6.6	2.9	4.1	3.0
AC-FT	4190	2660	1980	2040	2260	2880	1440	5730	1330	1140	1150	651

CAL YR 1984 TOTAL 25484.1 MEAN 69.6 MAX 1180 MIN 3.0 AC-FT 50550
WTR YR 1985 TOTAL 13841.3 MEAN 37.9 MAX 707 MIN 2.9 AC-FT 27450

07130000 JOHN MARTIN RESERVOIR AT CADDOA, CO

LOCATION.--Lat 38°04'05", long 102°56'13", in NE¼NW¼ sec.8, T.23 S., R.49 W., Bent County, Hydrologic Unit 11020009, at dam on Arkansas River at Caddoa, 3.2 mi southeast of Hasty, and 58 mi upstream from Colorado-Kansas State line.

DRAINAGE AREA.--18,915 mi², of which 785 mi² is probably noncontributing.

PERIOD OF RECORD.--January 1943 to current year. Monthend contents only prior to November 1943, published in WSP 1311.

GAGE.--Water-stage recorder for elevations above 3,784 ft, and nonrecording gage read once daily for those below. Datum of gage is 3,760.00 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Corps of Engineers); gage readings have been reduced to elevations below National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Reservoir is formed by concrete and earthfill dam. Storage began while dam was under construction prior to 1943, and record of contents began Jan. 1, 1943. Capacity (based on 1980 resurvey; new capacity table put into use Aug. 12, 1981), 615,500 acre-ft, at elevation 3,870.00 ft, top of spillway gates, of which 345,300 acre-ft between elevations 3,774.12 ft, elevation of no contents, and 3,851.00 ft, is for irrigation, and 270,200 acre-ft between elevations 3,851.00 ft, and 3,870.00 ft, is reserved for flood control. No dead storage. Figures given represent total contents.

COOPERATION.--Capacity tables provided by U.S. Army, Corps of Engineers.

EXTREMES (AT 2400) FOR PERIOD OF RECORD.--Maximum contents, 429,600 acre-ft, Aug. 25, 1965, elevation, 3,856.16 ft; no contents at times many years.

EXTREMES (AT 2400) FOR CURRENT YEAR.--Maximum contents, 362,000 acre-ft, June 17, elevation, 3,852.40 ft; minimum contents, 145,000 acre-ft, Oct. 3, elevation, 3,828.67 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)

3,785.0	448	3,800.0	21,800	3,830.0	153,700
3,790.0	3,380	3,810.0	52,300	3,840.0	232,900
3,795.0	11,100	3,820.0	94,400	3,850.0	333,800

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	145000	207000	232000	246000	278000	329000	344000	314000	355000	350000	336000	304000
2	145000	209000	232000	246000	279000	330000	344000	314000	355000	349000	336000	302000
3	145000	211000	233000	246000	280000	331000	344000	315000	356000	348000	338000	301000
4	145000	212000	233000	247000	281000	331000	345000	315000	356000	347000	339000	300000
5	145000	214000	234000	248000	282000	332000	345000	316000	355000	345000	340000	299000
6	146000	215000	234000	249000	282000	333000	345000	316000	356000	343000	340000	297000
7	147000	216000	235000	249000	284000	334000	345000	316000	356000	341000	340000	296000
8	149000	217000	235000	249000	285000	335000	345000	318000	355000	338000	339000	295000
9	150000	218000	236000	251000	287000	336000	345000	319000	355000	336000	337000	294000
10	151000	219000	236000	251000	289000	337000	345000	320000	357000	334000	335000	291000
11	152000	220000	237000	251000	292000	337000	345000	321000	357000	332000	333000	290000
12	154000	221000	237000	252000	295000	338000	344000	322000	357000	329000	331000	289000
13	155000	221000	238000	252000	298000	338000	342000	325000	357000	327000	329000	288000
14	157000	222000	238000	253000	300000	338000	340000	327000	357000	325000	327000	287000
15	158000	222000	239000	254000	304000	338000	339000	329000	357000	323000	326000	287000
16	161000	224000	239000	255000	306000	339000	338000	330000	358000	321000	324000	286000
17	164000	224000	240000	256000	309000	339000	337000	331000	362000	319000	321000	286000
18	166000	225000	240000	258000	313000	339000	335000	331000	362000	317000	320000	285000
19	168000	225000	241000	259000	315000	340000	333000	332000	359000	315000	318000	284000
20	172000	226000	241000	261000	317000	340000	332000	333000	357000	314000	318000	283000
21	175000	226000	241000	261000	319000	340000	330000	334000	356000	312000	317000	282000
22	178000	227000	242000	262000	321000	340000	328000	337000	356000	313000	316000	282000
23	181000	227000	242000	263000	323000	340000	326000	341000	355000	316000	315000	281000
24	184000	228000	243000	264000	324000	341000	324000	348000	355000	318000	313000	280000
25	188000	229000	243000	265000	326000	341000	322000	353000	355000	321000	312000	279000
26	190000	229000	243000	267000	327000	341000	320000	356000	354000	324000	311000	279000
27	193000	230000	244000	269000	328000	341000	318000	356000	354000	325000	310000	278000
28	196000	230000	244000	271000	329000	342000	316000	355000	353000	326000	309000	278000
29	199000	231000	245000	273000	---	342000	315000	355000	352000	327000	308000	278000
30	202000	231000	245000	275000	---	343000	314000	355000	351000	331000	306000	277000
31	205000	---	245000	277000	---	343000	---	356000	---	334000	305000	---
MAX	205000	231000	245000	277000	329000	343000	345000	356000	362000	350000	340000	304000
MIN	145000	207000	232000	246000	278000	329000	314000	314000	351000	312000	305000	277000

CAL YR 1984 MAX 245000 MIN 89800
WTR YR 1985 MAX 362000 MIN 145000

07130500 ARKANSAS RIVER BELOW JOHN MARTIN RESERVOIR, CO

LOCATION.--Lat 38°03'59", long 102°55'55", in NW¼NE¼ sec.8, T.23 S., R.49 W., Bent County, Hydrologic Unit 11020009, on right bank 0.2 mi downstream from John Martin Dam, 2.6 mi upstream from Caddoa Creek, and 3.5 mi southeast of Hasty.

DRAINAGE AREA.--18,915 mi^2, of which 785 mi^2 is probably noncontributing.

PERIOD OF RECORD.--Streamflow records, March 1938 to current year. Published as "at Caddoa" prior to October 1947. Water-quality data available, August 1942 to August 1943, October 1945 to July 1949, January 1951 to September 1981.

REVISED RECORDS.--WSP 1241: 1942(M). WSP 1341: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 3,737.40 ft above National Geodetic Vertical Datum of 1929. Prior to Feb. 22, 1940, at site 3 mi upstream at datum 22.83 ft, higher. Feb. 22, 1940, to Feb. 4, 1943, at site 700 ft upstream at datum 3.64 ft, higher, Feb. 5, 1943, to Apr. 8, 1975, at site 1.5 mi downstream at datum approximately 27.5 ft, lower.

REMARKS.--No estimated daily discharges. Records good. Storage diversions above station for irrigation of about 438,000 acres and for flood control. Flow completely regulated by John Martin Dam (station 07130000) 0.2 mi upstream since Oct. 1948. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--5 years (water years 1939-43), 628 ft^3/s, unadjusted; 455,000 acre-ft/yr, during construction of John Martin Dam: 37 years (water years 1949-85), 245 ft^3/s; 177,500 acre-ft/yr, adjusted for storage in John Martin Reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,000 ft^3/s, Apr. 24, 1942, gage height, 10.46 ft, site and datum then in use, from rating curve extended above 12,000 ft^3/s, on basis of flow-over-dam and critical-depth measurement of peak flow; no flow at times in 1945-47; minimum daily prior to construction of John Martin Reservoir, 5 ft^3/s, July 16, 1939.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,210 ft^3/s at 1530 June 18, gage height, 7.07 ft; minimum daily, 0.73 ft^3/s, Dec. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	815	1.6	2.2	.95	3.0	2.6	93	524	2230	694	383	722
2	472	1.6	2.5	1.4	3.2	2.3	92	491	2220	653	388	691
3	448	1.6	2.5	1.4	3.2	2.9	135	401	1160	639	354	682
4	385	1.6	2.2	1.3	3.2	3.7	114	357	1230	642	346	646
5	390	1.6	.95	1.2	3.2	3.2	122	353	1160	872	401	629
6	394	1.6	.95	1.2	3.3	3.0	122	378	978	1250	502	632
7	394	1.6	.95	1.4	3.2	3.1	122	365	1120	1240	552	615
8	394	1.6	.95	1.4	3.2	3.2	288	374	1150	1230	576	614
9	373	1.6	1.0	1.2	3.2	3.2	371	380	744	1210	931	627
10	130	1.6	.96	1.2	3.2	3.0	411	381	1550	1190	1170	942
11	4.8	1.6	.95	1.2	2.8	2.8	462	388	2670	1180	1160	1050
12	4.4	1.6	1.2	1.2	2.8	3.2	994	389	2900	1170	1180	893
13	4.4	1.6	1.2	1.2	3.2	3.5	1250	327	2860	1160	1150	908
14	4.4	1.6	1.2	1.2	2.7	3.3	1220	242	2880	1150	1010	912
15	117	1.4	1.2	1.2	2.8	3.5	1260	210	2980	1140	956	907
16	153	1.4	.95	1.2	2.8	3.7	1290	246	2230	1140	1060	872
17	107	1.4	.95	1.4	2.8	3.6	1290	227	556	1130	1120	638
18	97	1.4	.95	1.6	2.8	43	1230	201	1600	1120	1100	377
19	76	1.4	1.0	1.6	2.8	75	1170	204	2610	1160	810	380
20	63	1.9	.95	1.6	2.6	75	1150	205	2740	1150	578	377
21	63	1.8	1.2	1.6	2.8	81	1140	171	1640	1150	585	377
22	61	1.7	.95	1.6	2.6	88	1180	143	851	942	589	377
23	27	1.7	.95	1.6	2.5	91	1180	127	840	844	588	350
24	1.6	1.9	.95	1.8	2.5	92	1180	116	668	946	598	320
25	1.6	1.9	.95	2.2	2.5	92	1190	114	619	950	606	303
26	1.6	1.6	.95	2.2	2.6	92	1180	1020	633	920	639	301
27	1.6	1.4	.95	2.2	2.8	92	1170	2710	634	918	650	259
28	1.6	1.5	.73	2.2	2.7	92	1160	2790	661	930	619	239
29	1.6	1.7	.95	2.2	---	91	1060	2630	705	705	619	237
30	1.6	1.7	.95	2.2	---	91	742	2460	708	471	673	220
31	1.6	---	.95	2.3	---	92	---	2240	---	371	718	---
TOTAL	4989.8	48.2	36.19	48.15	81.0	1240.8	24368	21164	45527	30267	22611	17097
MEAN	161	1.61	1.17	1.55	2.89	40.0	812	683	1518	976	729	570
MAX	815	1.9	2.5	2.3	3.3	92	1290	2790	2980	1250	1180	1050
MIN	1.6	1.4	.73	.95	2.5	2.3	92	114	556	371	346	220
AC-FT	9900	96	72	96	161	2460	48330	41980	90300	60030	44850	33910

CAL YR 1984 TOTAL 141838.29 MEAN 388 MAX 1400 MIN .73 AC-FT 281300
WTR YR 1985 TOTAL 167478.14 MEAN 459 MAX 2980 MIN .73 AC-FT 332200

07133000 ARKANSAS RIVER AT LAMAR, CO

LOCATION.--Lat 38°06'21", long 102°37'05", in NE¼SE¼ sec.30, T.22 S., R.46 W., Prowers County, Hydrologic Unit 11020009, on left bank at downstream side of bridge on U.S. Highways 50 and 287, and 1.3 mi north of courthouse in Lamar.

DRAINAGE AREA.--19,780 mi^2, of which 950 mi^2 is probably noncontributing.

PERIOD OF RECORD.--Streamflow records, May 1913 to September 1955, April 1959 to current year. Monthly discharge only for some periods, published in WSP 1311. Water-quality data available, November 1963 to September 1965, September 1969 to August 1972.

REVISED RECORDS.--WSP 1341: 1921(M), 1945-46(M), drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,602.23 ft above National Geodetic Vertical Datum of 1929. See WSP 1731 for history of changes prior to Apr. 4, 1959. Apr. 4, 1959, to Mar. 26, 1968, at site 450 ft upstream at datum 2.42 ft, higher. Mar. 27, 1968 to Nov. 17, 1982 at datum 4.00 ft, lower.

REMARKS.--Estimated daily discharge: Oct. 3-16, Jan. 1-5, 9-14, 19-24, Jan. 30 to Feb. 8, Aug. 16 to Sept. 5, Sept. 11-30. Records good except for estimated daily discharges, which are fair. Flow regulated by John Martin Reservoir (station 07130000) 21 mi upstream since Oct. 1948. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of about 487,000 acres, and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--30 years (water years 1914-43), 298 ft^3/s; 215,900 acre-ft/yr, prior to and during construction of John Martin Dam, 33 years (water years 1949-55, 1960-85), 97.3 ft^3/s, unadjusted; 71,490 acre-ft/yr, subsequent to completion of John Martin Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 130,000 ft^3/s, June 5, 1921, gage height, 14.55 ft, present datum, from rating curve extended above 10,000 ft^3/s; maximum gage height, 16.48 ft, June 18, 1965, present datum, from floodmarks; no flow at times in 1913-15, 1953.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,190 ft^3/s at 1100 May 30, gage height, 9.94 ft; minimum daily, 11 ft^3/s, Nov. 3-4, 12-14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	455	12	33	30	25	31	42	112	1850	81	72	20
2	193	12	34	30	25	32	43	62	1770	71	60	20
3	160	11	35	30	25	30	60	45	1400	62	55	20
4	140	11	37	30	25	43	56	19	473	48	48	20
5	120	12	35	30	25	27	48	19	1020	38	21	20
6	100	13	30	29	28	26	45	18	522	451	19	21
7	100	12	35	35	32	25	44	20	583	533	25	21
8	110	12	34	32	36	26	33	16	611	568	42	19
9	110	12	34	29	39	28	36	14	478	584	72	19
10	80	12	34	27	38	30	14	14	260	579	462	43
11	80	12	33	28	39	30	30	14	1550	569	530	60
12	70	11	33	26	35	30	151	16	1980	550	534	30
13	60	11	35	26	37	31	723	142	1970	544	555	25
14	50	11	36	26	33	30	707	163	1930	535	491	21
15	50	13	37	28	33	30	781	41	1970	546	360	20
16	60	14	36	33	33	29	724	35	1970	515	380	20
17	94	13	35	33	32	29	677	33	494	520	380	20
18	77	13	35	35	32	29	607	38	243	512	500	20
19	65	13	34	33	31	19	666	41	1470	552	500	20
20	63	13	33	26	32	12	597	51	1570	558	220	20
21	61	15	34	34	33	28	580	44	1500	549	95	20
22	56	15	35	28	29	57	611	39	342	563	40	22
23	58	17	33	35	32	73	632	46	164	334	30	22
24	84	18	30	38	32	75	610	29	137	367	30	22
25	79	18	26	31	31	54	645	21	93	423	30	22
26	73	18	33	32	32	62	653	44	78	405	30	20
27	64	18	31	30	29	77	624	1410	62	411	30	20
28	63	28	31	29	29	34	604	1920	45	420	25	20
29	35	36	29	29	---	19	649	1920	63	430	20	20
30	30	34	28	26	---	37	482	2090	71	620	20	20
31	25	---	29	25	---	41	---	1890	---	147	20	---
TOTAL	2865	460	1027	933	882	1124	12174	10366	26669	13085	5696	687
MEAN	92.4	15.3	33.1	30.1	31.5	36.3	406	334	889	422	184	22.9
MAX	455	36	37	38	39	77	781	2090	1980	620	555	60
MIN	25	11	26	25	25	12	14	14	45	38	19	19
AC-FT	5680	912	2040	1850	1750	2230	24150	20560	52900	25950	11300	1360

CAL YR 1984 TOTAL 64658.2 MEAN 177 MAX 1090 MIN 5.2 AC-FT 128200
WTR YR 1985 TOTAL 75968 MEAN 208 MAX 2090 MIN 11 AC-FT 150700

07134180 ARKANSAS RIVER NEAR GRANADA, CO

LOCATION.--Lat 38°05'44", long 102°18'37", in SE¼NE¼ sec.36, T.22 S., R.44 W., Prowers County, Hydrologic Unit 11020009, on left bank at upstream side at end of bridge on U.S. Highway 385, 1.2 mi downstream from headgate of Buffalo Canal and 2.3 mi north of Granada.

DRAINAGE AREA.--23,707 mi^2.

PERIOD OF RECORD.--January 1899 to December 1901, gage heights only at different site and datum, August to October 1903, December 1980 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 3,480 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by John Martin Reservoir (station 07130000) 38 mi upstream since October 1948. Natural flow of stream affected by transmountain diversion, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of about 500,000 acres, and return flow from irrigated areas. Several observation of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 1,990 ft^3/s, June 1, 1985, gage height, 10.54 ft; minimum daily, 3.3 ft^3/s, May 27-28, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,990 ft^3/s at 1030 June 1, gage height, 10.54 ft; minimum daily, 25 ft^3/s, Apr. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	460	121	130	124	87	100	166	346	1960	166	254	91
2	382	115	129	113	86	99	147	217	1810	166	202	93
3	261	123	128	120	96	100	123	179	1650	157	175	96
4	227	137	129	134	99	94	129	145	1000	153	166	88
5	207	134	130	131	91	93	123	122	935	140	157	86
6	177	134	127	129	99	93	105	140	746	222	146	80
7	166	135	128	125	101	91	85	114	626	447	121	85
8	161	134	131	128	106	89	62	88	619	481	96	81
9	177	145	132	126	111	92	59	71	587	482	97	77
10	171	145	130	108	111	95	53	61	345	485	211	76
11	145	143	133	109	105	95	30	64	679	480	383	230
12	148	138	133	112	108	95	25	74	1250	472	420	310
13	138	142	135	115	116	94	342	144	1620	455	432	169
14	132	133	127	116	116	90	608	273	1730	434	444	129
15	131	135	130	119	118	90	618	167	1760	429	379	110
16	142	134	136	132	123	90	613	136	1840	420	351	95
17	149	132	137	130	124	89	584	127	1600	403	410	98
18	162	129	132	135	122	90	598	123	445	402	460	96
19	145	124	127	140	115	90	566	124	798	414	483	93
20	142	124	128	129	110	107	516	126	1430	468	307	89
21	141	126	133	120	109	65	486	124	1540	437	184	94
22	136	124	129	125	104	57	494	115	1080	468	164	97
23	133	124	128	126	104	87	514	109	438	384	149	103
24	145	125	126	125	104	106	496	99	339	336	143	113
25	162	137	123	127	103	91	502	72	254	357	144	112
26	156	140	129	128	104	117	548	69	212	359	142	111
27	145	131	131	128	101	135	546	485	183	379	139	109
28	135	134	134	128	101	167	534	1280	170	374	137	102
29	130	132	131	127	---	155	588	1740	166	421	125	108
30	123	133	126	118	---	126	590	1820	163	488	95	104
31	132	---	124	100	---	175	---	1880	---	555	84	---
TOTAL	5361	3963	4026	3827	2974	3157	10850	10634	27975	11834	7200	3325
MEAN	173	132	130	123	106	102	362	343	933	382	232	111
MAX	460	145	137	140	124	175	618	1880	1960	555	483	310
MIN	123	115	123	100	86	57	25	61	163	140	84	76
AC-FT	10630	7860	7990	7590	5900	6260	21520	21090	55490	23470	14280	6600

CAL YR 1984	TOTAL	75946.7	MEAN	208	MAX	1130	MIN	8.6	AC-FT	150600
WTR YR 1985	TOTAL	95126	MEAN	261	MAX	1960	MIN	25	AC-FT	188700

ARKANSAS RIVER BASIN

07137000 FRONTIER DITCH NEAR COOLIDGE, KS

LOCATION.--Lat 38°02'18", long 102°02'19", in SW¼ SE¼ NE¼ sec.21, T.23 S., R.43 W., Hamilton County, Hydrologic Unit 11030001, on left bank 0.3 mi east of Colorado-Kansas State line, 0.5 mi downstream from Holly drain diversion, 1.5 mi west of Coolidge, and 2.3 mi downstream from diversion of the Arkansas River.

PERIOD OF RECORD.--October 1950 to current year.

REVISED RECORDS.--WSP 1731: 1951.

GAGE.--Water-stage recorders and Parshall flume. Datum of gage is 3,353.14 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. This ditch diverts water from the Arkansas River in Colorado for use in Kansas. These records and records for the Arkansas River near Coolidge represent total flow of the Arkansas River at the Colorado-Kansas State line.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 84 ft³/s, Aug. 1, 1975; no flow for many days each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	.00	.00	.00	.00	.00	.00	39	23	23	.01	18
2	19	.00	.00	.00	.00	.00	.00	36	17	28	.00	21
3	11	.00	.00	.00	.00	.00	.00	34	17	25	.00	40
4	4.4	.00	.00	.00	.00	.00	.00	35	25	22	.00	42
5	.17	.00	.00	.00	.00	.00	.00	33	20	20	.00	44
6	3.4	.00	.00	.00	.00	.00	.00	42	24	18	1.2	43
7	18	.00	.00	.00	.00	.00	.00	34	15	39	16	41
8	18	.00	.00	.00	.00	.00	.00	29	23	47	14	41
9	10	.00	.00	.00	.00	.00	.00	30	25	50	14	39
10	.03	.00	.00	.00	.00	.00	.00	24	23	51	14	42
11	.00	.00	.00	.00	.00	.00	.00	22	25	50	33	41
12	.00	.00	.00	.00	.00	.00	.00	21	32	46	41	31
13	.00	.00	.00	.00	.00	.00	.00	28	27	48	44	16
14	.00	.00	.00	.00	.00	.00	.00	.30	26	48	42	14
15	.00	.00	.00	.00	.00	.00	.00	.00	24	41	38	11
16	.00	.00	.00	.00	.00	.00	.00	.00	25	37	38	9.0
17	.00	.00	.00	.00	.00	.00	.00	.00	26	35	43	7.9
18	.00	.00	.00	.00	.00	.00	18	.00	22	40	40	8.7
19	.00	.00	.00	.00	.00	.00	28	.00	31	46	11	9.0
20	.00	.00	.00	.00	.00	.00	33	.00	34	44	11	7.0
21	.00	.00	.00	.00	.00	.00	36	.00	31	41	24	7.5
22	.00	.00	.00	.00	.00	.00	38	.00	28	39	26	7.4
23	.00	.00	.00	.00	.00	.00	41	.00	15	25	26	7.6
24	.42	.00	.00	.00	.00	.00	43	.00	18	30	26	9.1
25	1.6	.00	.00	.00	.00	.00	47	.00	20	28	29	10
26	.19	.00	.00	.00	.00	.00	46	.00	17	29	31	7.9
27	.00	.00	.00	.00	.00	.00	41	.00	14	28	36	8.3
28	.00	.00	.00	.00	.00	.00	40	.00	12	24	36	10
29	.00	.00	.00	.00	---	.00	43	8.7	11	53	31	11
30	.00	.00	.00	.00	---	.00	46	21	20	.87	26	9.3
31	.00	---	.00	.00	---	.00	---	23	---	.05	22	---
TOTAL	104.21	.00	.00	.00	.00	.00	500.00	460.00	670	1055.92	713.21	613.7
MEAN	3.36	.000	.000	.000	.000	.000	16.7	14.8	22.3	34.1	23.0	20.5
MAX	19	.00	.00	.00	.00	.00	47	42	34	53	44	44
MIN	.00	.00	.00	.00	.00	.00	.00	.00	11	.05	.00	7.0
AC-FT	207	.00	.00	.00	.00	.00	992	912	1330	2090	1410	1220

CAL YR 1984 TOTAL 3331.79 MEAN 9.10 MAX 62 MIN .00 AC-FT 6610
WTR YR 1985 TOTAL 4117.04 MEAN 11.3 MAX 53 MIN .00 AC-FT 8170

07137500 ARKANSAS RIVER NEAR COOLIDGE, KS
(National stream-quality accounting network station)

LOCATION.--Lat 38°01'34", long 102°00'41", in NW¼ NE¼ NW¼ sec.26, T.23 S., R.43 W., Hamilton County, Hydrologic Unit 11030001, on right bank at downstream side of bridge, 1.0 mi south of Coolidge, and 1.9 mi downstream from Colorado-Kansas State line, and at mile 1,101.1.

DRAINAGE AREA.--25,410 mi², of which 1,708 mi² is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to October 1903, March to May 1921, October 1950 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1341: 1903, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,330.84 ft above National Geodetic Vertical Datum of 1929. May 5 to Oct. 31, 1903, nonrecording gage, and Mar. 1 to May 31, 1921, water-stage recorder at present site at different datum. Oct. 1, 1950, to Mar. 31, 1966, water-stage recorder at site 0.3 mi upstream at datum 3.00 ft higher.

REMARKS.--Estimated daily discharges: Feb. 3-9. Records good except those for estimated daily discharges, which are poor. Combined flow of river and Frontier Ditch (station 07137000) represents entire flow that enters Kansas. Flow regulated since 1943 by John Martin Reservoir (station 07130000). Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of about 500,000 acres, and return flow from irrigated areas.

AVERAGE DISCHARGE.--35 years, 184 ft³/s, 133,300 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 158,000 ft³/s June 17, 1965, gage height, 14.8 ft, present site and datum, from floodmarks, from rating curve extended above 13,000 ft³/s on basis of slope-area measurement of peak flow; no flow for many days in 1903, 1954, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,200 ft³/s, July 29, gage height, 6.93 ft; minimum daily, 115 ft³/s, Feb. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	621	220	185	162	132	149	261	516	1770	261	617	191
2	630	213	181	159	133	151	231	346	1690	260	474	198
3	478	221	171	160	130	152	213	284	1640	256	402	174
4	418	220	173	167	125	142	195	249	1540	242	374	168
5	401	209	177	169	115	133	200	214	865	231	324	165
6	354	215	180	169	120	129	188	241	1010	218	273	157
7	316	217	184	165	130	132	174	236	723	356	227	154
8	309	218	188	165	150	135	174	204	661	452	212	158
9	363	212	188	163	160	139	176	180	630	475	213	157
10	356	210	185	150	154	141	168	167	544	480	223	160
11	341	214	182	147	148	141	157	169	441	492	378	189
12	304	217	180	146	144	140	145	164	919	489	453	394
13	260	218	186	150	152	139	155	338	1330	468	475	305
14	251	217	185	157	157	138	431	503	1620	464	530	267
15	266	207	180	153	165	133	537	434	1710	475	521	256
16	334	200	189	157	172	133	567	349	1780	486	438	251
17	340	197	184	160	172	134	569	327	1870	460	447	238
18	333	192	179	165	169	135	547	312	1200	452	513	236
19	297	186	175	169	169	131	526	287	613	552	636	228
20	282	186	175	164	165	138	491	297	1140	559	546	201
21	286	192	178	160	161	151	463	321	1450	554	361	212
22	266	186	173	162	157	152	450	274	1560	563	303	214
23	274	181	168	163	155	151	462	276	812	594	266	221
24	286	183	169	159	152	168	454	226	522	443	247	243
25	361	190	166	162	149	182	452	216	425	426	245	250
26	292	194	171	167	147	196	496	217	378	445	237	224
27	282	189	178	170	148	192	522	229	320	446	221	220
28	255	186	184	171	150	206	505	741	291	449	215	224
29	246	188	180	170	---	211	555	1280	270	1370	211	251
30	239	183	175	165	---	221	629	1590	259	832	198	232
31	235	---	171	150	---	241	---	1710	---	909	185	---
TOTAL	10276	6061	5540	4996	4181	4836	11093	12897	29983	15159	10965	6538
MEAN	331	202	[illegible]	161	149	156	370	416	999	489	354	218
MAX	630	221	[illegible]	171	172	241	629	1710	1870	1370	636	394
MIN	235	181	166	146	115	129	145	164	259	218	185	154
AC-FT	20380	12020	10990	9910	8290	9590	22000	25580	59470	30070	21750	12970

CAL YR 1984 TOTAL 99662 MEAN 272 MAX 2120 MIN 63 AC-FT 197700
WTR YR 1985 TOTAL 122525 MEAN 336 MAX 1870 MIN 115 AC-FT 243000

07137500 ARKANSAS RIVER NEAR COOLIDGE, KS--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-68, 1970-73, 1975 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1963 to September 1968, January 1976 to September 1981.
WATER TEMPERATURES: November 1963 to September 1968, January 1976 to September 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	BARO-METRIC PRES-SURE (MM OF HG)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 02...	13:15	651	2180	7.1	18.0	--	--	--	--
NOV 02...	13:05	213	4620	8.1	11.0	10.4	672	110	280
JAN 21...	11:40	155	4550	8.2	0.0	12.7	682	--	--
MAR 05...	11:40	131	4820	8.2	4.0	--	--	15	260
MAY 22...	10:30	261	3550	7.9	22.0	8.3	725	200	1400
30...	11:50	1660	1620	7.9	22.5	--	--	--	--
JUN 03...	11:40	1640	1900	8.1	19.0	--	--	--	--
20...	12:00	1150	2020	8.0	24.0	--	--	--	--
JUL 29...	13:55	1760	1170	7.9	22.0	--	--	--	--
AUG 01...	11:55	604	2800	8.2	21.0	7.4	720	730	3400
13...	11:25	477	2280	8.2	20.0	--	--	--	--
SEP 09...	11:15	153	3770	8.3	19.0	--	--	--	--

DATE	TUR-BID-ITY (NTU)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)
NOV 02...	35	1700	<1670	370	180	500	5	10	263	3.9	2400
MAR 05...	34	1800	1770	390	190	610	7	10	289	3.7	2600
MAY 22...	44	1400	1420	300	160	460	5	10	247	8.1	1900
AUG 01...	170	870	870	200	90	290	4	9.4	195	3.2	1300

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)
NOV 02...	170	1.1	19	4090	5.6	2350	2.20	1.3	0.07	0.02
MAR 05...	180	0.6	18	4390	6.0	1550	2.30	1.4	0.06	0.01
MAY 22...	130	1.0	12	3470	4.7	2450	1.60	0.9	0.14	0.04
AUG 01...	96	0.8	13	2310	3.1	3770	--	--	--	--

07137500 ARKANSAS RIVER NEAR COOLIDGE, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
NOV 02...	20	2	<100	<10	2	1	<1	5	90	2
MAR 05...	40	<1	100	<10	5	<1	<1	10	50	<1
MAY 22...	<10	<1	300	<10	1	<1	2	3	40	3
AUG 01...	150	2	<100	<10	<1	<1	<1	3	100	2

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)
NOV 02...	170	20	<0.1	6	4	10	<1	7200	6	20
MAR 05...	190	30	--	2	4	13	8	8300	5	30
MAY 22...	150	30	--	4	5	26	<1	6000	5	20
AUG 01...	100	40	<0.1	8	3	15	<1	270	2	30

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 02...	13:15	651	355	624	40
NOV 02...	13:05	213	E140	--	--
JAN 21...	11:40	155	95	40	72
MAR 05...	11:40	131	161	57	72
MAY 22...	10:30	261	844	595	29
30...	11:50	1660	456	2040	68
JUN 03...	11:40	1640	773	3420	20
20...	12:00	1150	1370	4240	83
JUL 29...	13:55	1760	1210	5750	57
AUG 01...	11:55	604	1040	1700	52
13...	11:25	477	454	585	87
SEP 09...	11:15	153	140	58	87

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM
OCT 02...	49	66	79	100
MAR 05...	72	85	100	--
MAY 22...	32	38	93	100
30...	68	81	97	100
JUN 03...	24	44	100	--
20...	100	--	--	--
JUL 29...	62	74	100	--
AUG 01...	52	57	67	100
13...	87	95	100	--

08213500 RIO GRANDE AT THIRTYMILE BRIDGE, NEAR CREEDE, CO

LOCATION.--Lat 37°43'29", long 107°15'18", in NE¼ sec.13, T.40 N., R.4 W., Hinsdale County, Hydrologic Unit 13010001, on right bank 70 ft downstream from bridge, 500 ft upstream from Squaw Creek, 0.8 mi downstream from Rio Grande Reservoir, and 20 mi southwest of Creede.

DRAINAGE AREA.--163 mi^2.

PERIOD OF RECORD.--June 1909 to September 1923, May 1925 to current year. No winter records 1910, 1926. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Elevation of gage is 9,300 ft, from topographic map. See WSP 1712 or 1732 for history of changes prior to Oct. 1, 1934.

REMARKS.--Estimated daily discharges: Nov. 27 to Apr. 8. Records good except for estimated daily discharges, which are fair. Flow regulated by Rio Grande Reservoir, capacity, 51,110 acre-ft, since 1912. Natural flow of stream affected by transmountain diversions from Colorado River basin to drainage area above station through Weminuche Pass and Pine River-Weminuche Pass ditches. No known diversions above station. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--69 years (water years 1911-23, 1927-82), 211 ft^3/s; 152,900 acre-ft/yr: 71 years, (water years 1911-23, 1927-85), 213 ft^3/s; 154,300 acre-ft/yr

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,500 ft^3/s, June 28, 1927, gage height, 7.03 ft, present datum, from rating curve extended above 1,200 ft^3/s; minimum daily, 0.10 ft^3/s, Nov. 2-4, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,730 ft^3/s at 0400 June 8, gage height, 4.86 ft; minimum daily, 10 ft^3/s, many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	154	42	10	11	12	14	15	155	670	979	670	62
2	154	42	10	11	13	14	15	226	578	979	670	63
3	154	42	10	11	13	14	15	229	514	979	662	63
4	154	42	10	11	13	14	15	278	794	979	662	63
5	154	42	10	11	13	14	15	365	1070	979	655	82
6	154	43	10	11	13	14	15	410	1380	946	655	94
7	154	43	10	11	13	14	15	416	2080	890	578	94
8	154	39	10	11	13	14	15	572	2520	946	478	94
9	154	33	10	11	13	14	15	938	2530	979	365	94
10	154	34	10	11	13	14	15	1110	2380	1010	252	94
11	154	34	10	12	13	14	15	1120	2350	1020	226	94
12	154	34	10	12	13	14	111	866	2260	1020	226	94
13	154	38	10	12	13	14	162	540	2160	1020	157	94
14	157	33	10	12	13	14	162	324	2120	1080	125	94
15	157	10	10	12	13	14	162	91	2120	1040	125	94
16	157	10	10	12	13	14	164	130	2200	1010	125	94
17	157	10	10	12	13	14	164	350	2020	890	125	94
18	157	10	10	12	13	15	167	432	1940	826	125	106
19	157	10	10	12	13	15	167	472	1940	874	125	108
20	157	10	11	12	13	15	61	490	1780	930	125	80
21	157	10	11	12	13	15	19	438	1700	970	125	80
22	157	10	11	12	13	15	19	405	1620	882	83	80
23	157	10	11	12	13	15	19	405	1500	778	63	80
24	157	10	11	12	14	15	19	496	1420	655	63	70
25	154	10	11	12	14	15	18	670	1470	552	63	109
26	154	10	11	12	14	15	17	866	1330	514	63	205
27	154	10	11	12	14	15	17	988	1120	514	62	205
28	154	10	11	12	14	15	17	715	1030	613	62	205
29	106	10	11	12	---	15	17	559	988	700	62	205
30	42	10	11	12	---	15	17	559	979	685	62	205
31	42	---	11	12	---	15	---	566	---	670	62	---
TOTAL	4535	701	322	362	368	448	1664	16181	48563	26909	7901	3199
MEAN	146	23.4	10.4	11.7	13.1	14.5	55.5	522	1619	868	255	107
MAX	157	43	11	12	14	15	167	1120	2530	1080	670	205
MIN	42	10	10	11	12	14	15	91	514	514	62	62
AC-FT	9000	1390	639	718	730	889	3300	32100	96320	53370	15670	6350

CAL YR 1984	TOTAL	98319.9	MEAN	269	MAX	1990	MIN	5.2	AC-FT	195000
WTR YR 1985	TOTAL	111153	MEAN	305	MAX	2530	MIN	10	AC-FT	220500

NOTE.--NO GAGE-HEIGHT RECORD NOV. 27 TO APR. 8.

08214500 NORTH CLEAR CREEK BELOW CONTINENTAL RESERVOIR, CO

LOCATION.--Lat 37°53'18", long 107°12'10", in NE¼SW¼ sec.21, T.42 N., R.3 S., Hinsdale County, Hydrologic Unit 13010001, on left bank 100 ft downstream from bridge, 1,000 ft downstream from Continental Reservoir, and 15 mi west of Creede.

DRAINAGE AREA.--51.7 mi^2.

PERIOD OF RECORD.--May 1929 to current year. Monthly discharge only for some periods, published in WSP 1312. Prior to October 1960, published as Clear Creek below Continental Reservoir.

REVISED RECORDS.--WSP 1008: Drainage area.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 10,200 ft, from topographic map. Prior to Oct. 2, 1951, at site 150 ft upstream, at different datum.

REMARKS.--Estimated daily discharges: Nov. 22 to Apr. 12. Records good except for estimated daily discharges, which are fair. Flow regulated by Continental Reservoir, capacity, 26,720 acre-ft. No diversion above station. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--56 years, 30.3 ft^3/s; 21,950 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 362 ft^3/s, May 8, 1952, gage height, 3.66 ft, from rating curve extended above 120 ft^3/s; no flow, June 22, 23, 1935.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 280 ft^3/s at 1200 Aug. 23, gage height, 2.58 ft; minimum daily, 0.35 ft^3/s, many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	96	.35	.40	.50	.55	.60	67	87	2.0	40	96
2	16	145	.35	.40	.50	.55	.60	76	87	2.0	39	45
3	18	153	.35	.40	.50	.55	.60	81	126	2.0	36	21
4	26	155	.35	.40	.50	.55	.60	81	152	21	29	25
5	30	155	.35	.40	.50	.55	.60	82	150	33	16	28
6	24	163	.35	.40	.50	.55	.60	90	153	31	6.7	26
7	21	166	.35	.40	.50	.55	.60	99	108	31	4.4	17
8	21	165	.35	.45	.50	.55	.60	103	81	31	5.5	16
9	21	177	.35	.45	.50	.55	.60	103	82	34	7.8	14
10	19	186	.35	.45	.50	.55	.60	104	47	36	9.1	13
11	18	201	.35	.45	.50	.55	.60	104	1.4	38	12	13
12	19	216	.35	.45	.50	.55	35	110	1.2	38	105	14
13	19	229	.35	.45	.50	.55	50	114	1.2	38	193	17
14	19	89	.35	.45	.50	.55	61	119	1.4	38	249	15
15	19	81	.35	.45	.50	.55	68	121	1.4	30	268	23
16	19	223	.40	.45	.50	.55	80	120	1.4	22	259	26
17	18	223	.40	.45	.50	.55	86	117	1.4	20	247	26
18	18	144	.40	.45	.50	.55	86	121	1.4	27	243	26
19	22	.50	.40	.45	.50	.60	112	128	1.6	35	245	11
20	28	9.8	.40	.45	.50	.60	126	127	1.6	38	253	.65
21	28	17	.40	.45	.50	.60	142	127	1.6	38	257	.65
22	23	6.6	.40	.45	.50	.60	175	127	1.8	35	268	.65
23	19	.35	.40	.45	.50	.60	179	121	1.8	28	278	.65
24	19	.35	.40	.45	.55	.60	186	113	1.8	17	268	.50
25	19	.35	.40	.45	.55	.60	186	121	1.8	16	249	.35
26	18	.35	.40	.45	.55	.60	182	150	1.8	21	179	13
27	17	.35	.40	.45	.55	.60	179	179	1.8	25	138	20
28	17	.35	.40	.45	.55	.60	184	136	1.8	26	138	20
29	17	.35	.40	.45	---	.60	188	95	1.8	33	116	20
30	17	.35	.40	.45	---	.60	114	87	2.0	38	91	20
31	17	---	.40	.45	---	.60	---	87	---	39	92	---
TOTAL	619	3003.70	11.65	13.60	14.25	17.70	2425.60	3410	1105.0	863.0	4341.5	568.45
MEAN	20.0	100	.38	.44	.51	.57	80.9	110	36.8	27.8	140	18.9
MAX	30	229	.40	.45	.55	.60	188	179	153	39	278	96
MIN	13	.35	.35	.40	.50	.55	.60	67	1.2	2.0	4.4	.35
AC-FT	1230	5960	23	27	28	35	4810	6760	2190	1710	8610	1130

CAL YR 1984 TOTAL 12618.08 MEAN 34.5 MAX 229 MIN .05 AC-FT 25030
WTR YR 1985 TOTAL 16393.45 MEAN 44.9 MAX 278 MIN .35 AC-FT 32520

NOTE.--NO GAGE-HEIGHT RECORD NOV. 22 TO APR. 12.

08217500 RIO GRANDE AT WAGONWHEEL GAP, CO

LOCATION.--Lat 37°46'01", long 106°49'51", in NW¼NE¼ sec.35, T.41 N., R.1 E., Mineral County, Hydrologic Unit 13010001, on right bank 250 ft upstream from private bridge, 0.4 mi upstream from Goose Creek, and 0.4 mi west of town of Wagonwheel Gap.

DRAINAGE AREA.--780 mi^2.

PERIOD OF RECORD.--May 1951 to current year.

GAGE.--Water-stage recorder. Datum of gage is 8,431.26 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Nov. 28-30, Dec. 4-5, 8-11, Dec. 17 to Mar. 18. Records good except for estimated daily discharges, which are poor. Flow regulated by Santa Maria, Rio Grande, and Continental Reservoirs, combined capacity, 121,400 acre-ft. Diversions above station for irrigation. Transmountain diversions to drainaga area above station from Colorado River basin (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--34 years, 522 ft^3/s; 378,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,190 ft^3/s, June 9, 1985, gage height, 6.10 ft; minimum daily, 46 ft^3/s, Dec. 9, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,190 ft^3/s at 0530 June 9, gage height, 6.10 ft; minimum daily, 90 ft^3/s, Nov. 27, Feb. 1-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	416	272	124	110	90	130	159	646	2350	1740	1220	393
2	490	249	131	100	90	130	176	868	2420	1700	1300	390
3	519	261	122	100	90	130	201	1100	2460	1650	1350	344
4	552	248	120	110	90	130	231	1450	2810	1630	1270	320
5	542	239	120	110	90	130	242	1750	2990	1620	1190	313
6	525	261	118	120	90	120	308	1840	3360	1590	1130	329
7	495	238	112	120	90	120	373	1890	4210	1520	1040	332
8	478	243	120	120	90	120	424	2130	4790	1470	923	337
9	468	219	130	120	90	120	442	2390	4970	1530	871	321
10	462	189	120	110	90	130	480	2600	4620	1570	788	307
11	457	225	115	110	90	140	550	2430	4370	1570	742	324
12	466	236	109	110	100	140	578	2170	4130	1560	730	549
13	485	226	110	100	100	140	763	1720	3980	1600	685	402
14	508	224	104	100	110	140	772	1340	3830	1590	642	380
15	472	187	116	110	120	140	825	1090	3720	1600	675	412
16	450	185	126	110	120	140	886	1010	3850	1650	649	466
17	498	200	115	120	130	130	892	1280	3560	1620	633	411
18	475	187	130	120	140	130	971	1690	3370	1500	637	432
19	461	146	130	130	140	122	922	1720	3350	1510	659	964
20	465	130	130	130	140	127	781	1700	3230	1520	640	732
21	461	128	120	130	140	131	606	1770	3040	1560	679	776
22	465	139	100	130	140	139	542	1640	2950	1590	662	744
23	449	155	100	130	140	132	482	1670	2740	1550	595	670
24	440	182	110	130	130	155	468	1890	2620	1380	584	613
25	432	155	110	130	120	179	483	2340	2790	1260	552	570
26	420	126	120	120	120	183	469	2850	2560	1100	524	601
27	439	90	120	120	120	158	448	3290	2160	1080	441	623
28	421	125	120	110	120	154	493	3350	1960	1140	432	624
29	412	130	120	110	---	142	528	2870	1870	1610	441	678
30	346	130	120	100	---	131	533	2710	1770	1490	404	627
31	306	---	120	100	---	137	---	2530	---	1360	391	---
TOTAL	14275	5725	3662	3570	3120	4250	16028	59724	96830	46860	23479	14984
MEAN	460	191	118	115	111	137	534	1927	3228	1512	757	499
MAX	552	272	131	130	140	183	971	3350	4970	1740	1350	964
MIN	306	90	100	100	90	120	159	646	1770	1080	391	307

CAL YR 1984 TOTAL 254866 MEAN 696 MAX 4100 MIN 90
WTR YR 1985 TOTAL 292507 MEAN 801 MAX 4970 MIN 90

08218500 GOOSE CREEK AT WAGONWHEEL GAP, CO

LOCATION.--Lat 37°45'07", long 106°49'46", in SW¼SE¼ sec.35, T.41 N., R.1 E., Mineral County, Hydrologic Unit 13010001, on left bank 0.2 mi downstream from Pierce Creek, 1.0 mi upstream from mouth, 1.0 mi south of Wagonwheel Gap, and 8.8 mi southeast of Creede.

DRAINAGE AREA.--90 mi^2, approximately.

PERIOD OF RECORD.--June 1954 to current year.

REVISED RECORDS.--WSP 1712: 1955, 1956(M).

GAGE.--Water-stage recorder. Elevation of gage is 8,460 ft, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 20-23, Nov. 26 to Mar. 27. Records fair except for estimated daily discharges, which are poor. Several small diversions above station for irrigation. Lake Humphreys, capacity, 842 acre-ft, with a fixed spillway and no gates has slight effect on flow. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--31 years, 61.1 ft^3/s; 44,260 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 879 ft^3/s, Sept. 14, 1970, gage height, 4.52 ft, from recorded range in stage, from rating curve extended above 480 ft^3/s; minimum daily, 4.5 ft^3/s, Jan. 6, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1927 exceeded all other observed floods at this location, including those of October 1911 and June 18, 1949. Flood of October 1911 probably exceeded that of June 18,1949, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 8	2200	410	3.71	June 10	2100	*668	*4.16
May 29	0030	468	3.85				

Minimum daily discharge, 15 ft^3/s, Feb. 1, 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	34	22	18	15	19	20	136	345	268	103	34
2	41	34	22	17	15	19	24	141	354	250	116	35
3	42	37	22	17	16	19	31	204	381	246	113	39
4	40	36	22	18	17	18	40	280	376	232	94	40
5	39	32	22	18	17	18	46	304	336	228	87	39
6	39	32	21	18	17	19	56	300	350	222	94	34
7	35	30	21	18	17	20	64	318	430	200	85	32
8	36	31	21	19	17	19	76	345	539	190	76	32
9	37	30	21	19	18	20	74	350	610	184	72	31
10	36	26	21	18	18	20	81	340	598	169	70	30
11	40	29	20	18	17	20	94	304	598	160	66	50
12	44	29	20	18	18	20	101	272	580	155	66	88
13	45	28	20	18	19	20	116	232	586	160	59	48
14	49	28	20	18	19	20	130	190	522	144	58	41
15	37	24	20	18	19	21	155	194	512	144	54	77
16	36	26	18	18	19	21	175	225	550	136	51	76
17	42	28	18	18	19	20	175	232	517	146	48	58
18	37	28	18	18	19	21	178	232	490	128	46	79
19	42	20	18	19	19	21	152	222	495	123	46	157
20	39	20	18	19	19	21	128	204	468	116	45	116
21	39	20	18	19	19	21	118	208	462	120	49	128
22	35	22	18	19	19	20	96	190	451	118	44	118
23	36	23	18	18	19	21	85	194	435	110	41	99
24	35	25	18	18	18	21	83	236	435	103	40	87
25	32	20	18	18	18	22	87	288	462	81	37	79
26	32	20	18	18	18	23	81	340	410	81	36	72
27	37	22	19	19	18	24	77	381	336	79	36	70
28	37	24	20	18	19	21	83	420	304	90	39	72
29	35	24	19	18	---	22	96	456	292	208	37	76
30	35	22	18	17	---	20	101	425	272	144	35	64
31	35	---	18	16	---	22	---	381	---	118	35	---
TOTAL	1178	804	607	560	502	633	2823	8544	13496	4853	1878	2001
MEAN	38.0	26.8	19.6	18.1	17.9	20.4	94.1	276	450	157	60.6	66.7
MAX	49	37	22	19	19	24	178	456	610	268	116	157
MIN	32	20	18	16	15	18	20	136	272	79	35	30
AC-FT	2340	1590	1200	1110	996	1260	5600	16950	26770	9630	3730	3970

CAL YR 1984	TOTAL	25875	MEAN	70.7	MAX	640	MIN	16	AC-FT	51320
WTR YR 1985	TOTAL	37879	MEAN	104	MAX	610	MIN	15	AC-FT	75130

NOTE.--NO GAGE-HEIGHT RECORD NOV. 26 TO MAR. 27.

08219500 SOUTH FORK RIO GRANDE AT SOUTH FORK, CO

LOCATION.--Lat 37°39'25", long 106°38'55", in SW¼NE¼ sec.3, T.39 N., R.3 E., Rio Grande County, Hydrologic Unit 13010001, on left bank near U.S. Highway 160, 700 ft downstream from Church Creek, 0.8 mi southwest of village of South Fork, and 1.4 mi upstream from mouth.

DRAINAGE AREA.--216 mi^2.

PERIOD OF RECORD.--August 1910 to September 1922, May 1936 to current year. Monthly discharge only for some periods, published in WSP 1312.

REVISED RECORDS.--WSP 898: 1911(M). WSP 1312: 1912, 1944(M). WSP 1632: 1956-58(P).

GAGE.--Water-stage recorder. Datum of gage is 8,221.79 ft above National Geodetic Vertical Datum of 1929. Aug. 9, 1910, to Mar. 28, 1915, nonrecording gage, and Mar. 29, 1915, to Sept. 30, 1922, water-stage recorder, at bridges 1 mi downstream at different datums.

REMARKS.--Estmated daily discharges: Oct. 23-25, Dec. 22-27, Dec. 30 to Mar. 27. Records good except for estimated daily discharges, which are poor. Transmountain diversions from Colorado River basin to drainage area above station through Treasure Pass ditch. Natural flow of stream affected by a few small diversions for irrigation, slight regulation by Beaver Creek Reservoir, capacity, 4,760 acre-ft, and several smaller storage reservoirs. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--61 years (water years 1911-22, 1937-85), 212 ft^3/s; 153,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,000 ft^3/s, Oct. 5, 1911, gage height, 9.7 ft, from floodmarks, present site and datum, from rating curve extended above 1,500 ft^3/s; minimum daily, 10 ft^3/s, Jan. 6, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 5, 1911, exceeded all other observed floods at this location since at least 1873. Flood of June 29, 1927, reached a stage about 1 ft lower than that of Oct. 5, 1911, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 8	2200	1,700	5.26	June 8	2200	*2,930	*6.57
May 28	2400	2,550	6.12				

Minimum daily discharge, 30 ft^3/s, Feb. 1-3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	120	104	62	54	30	54	83	595	1560	655	268	83
2	161	101	62	48	30	58	96	558	1640	568	325	84
3	171	101	62	48	30	58	121	695	1720	545	289	78
4	173	99	64	50	34	52	155	954	1630	527	262	56
5	161	94	64	52	34	52	195	1120	1490	509	240	54
6	159	94	62	52	36	62	235	1200	1500	491	235	50
7	149	90	64	54	36	68	268	1260	1740	447	218	48
8	145	88	66	58	36	62	295	1440	2410	415	199	49
9	149	84	66	60	40	68	313	1540	2510	403	193	53
10	143	62	66	50	40	68	337	1580	2440	372	183	66
11	139	84	68	50	36	68	372	1410	2310	354	177	92
12	159	78	68	52	38	68	419	1240	2230	337	175	182
13	169	75	68	48	40	60	491	1060	2140	334	157	101
14	173	69	66	50	40	64	568	912	1910	319	149	85
15	159	63	70	48	40	70	655	864	1850	304	145	135
16	149	64	62	48	40	78	745	846	1880	275	141	159
17	139	66	62	48	42	72	815	840	1690	260	137	123
18	121	64	60	50	48	80	864	825	1520	238	135	158
19	127	58	62	50	44	80	906	815	1430	232	125	419
20	121	67	62	50	48	78	815	760	1350	210	94	301
21	118	65	62	54	46	78	745	725	1390	210	97	325
22	118	70	56	54	46	72	675	690	1340	210	99	283
23	110	72	56	48	46	74	600	725	1240	201	97	242
24	105	70	56	48	42	82	540	852	1190	210	96	210
25	96	63	60	48	44	82	545	1100	1300	210	93	191
26	96	63	60	48	48	88	482	1380	1110	191	90	177
27	97	62	64	52	48	86	415	1920	888	181	88	167
28	96	62	72	46	54	80	447	2080	780	185	90	179
29	96	66	64	42	---	90	514	2230	750	418	93	215
30	101	64	58	42	---	90	563	2020	705	435	87	179
31	105	---	58	34	---	81	---	1720	---	313	84	---
TOTAL	4125	2262	1952	1536	1136	2223	14274	35956	47643	10559	4861	4544
MEAN	133	75.4	63.0	49.5	40.6	71.7	476	1160	1588	341	157	151
MAX	173	104	72	60	54	90	906	2230	2510	655	325	419
MIN	96	58	56	34	30	52	83	558	705	181	84	48
AC-FT	8180	4490	3870	3050	2250	4410	28310	71320	94500	20940	9640	9010

CAL YR 1984 TOTAL 92600 MEAN 253 MAX 2980 MIN 26 AC-FT 183700
WTR YR 1985 TOTAL 131071 MEAN 359 MAX 2510 MIN 30 AC-FT 260000

08220000 RIO GRANDE NEAR DEL NORTE, CO

LOCATION.--Lat 37°41'22", long 106°27'38", in NW¼ sec.29, T.40 N., R.5 E., Rio Grande County, Hydrologic Unit 13010001, on right bank 20 ft downstream from county highway bridge, 6.0 mi west of Del Norte, and 18 mi upstream from Pinos Creek.

DRAINAGE AREA.--1,320 mi^2, approximately.

PERIOD OF RECORD.--June 1889 to current year. Monthly discharge only for some periods, published in WSP 1312.

REVISED RECORDS.--WSP 763: Drainage area. WSP 1312: 1889, 1901, 1913-14.

GAGE.--Water-stage recorder. Datum of gage is 7,980.25 ft above National Geodetic Vertical Datum of 1929. Prior to May 16, 1908, nonrecording gage at site 4 mi downstream at different datum. May 16, 1908, to Nov. 8, 1910, nonrecording gages on bridge at present site and datum.

REMARKS.--Estimated daily discharges: Nov. 27 to Dec. 7, Dec. 10 to Mar. 13. Records good except for estimated daily discharges, which are fair. Small diversions above station for irrigation. Flow regulated by Beaver Creek Reservoir since 1910, Santa Maria Reservoir since 1912, Rio Grande Reservoir since 1912, and Continental Reservoir since 1925, combined capacity, 126,100 acre-ft, and by several smaller reservoirs. Transmountain diversions to drainage area above station from Colorado River basin (see elsewhere in this report). Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--96 years, 902 ft^3/s; 653,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,000 ft^3/s, Oct. 5, 1911, gage height, 6.80 ft, from rating curve extended above 12,900 ft^3/s; minimum daily, 69 ft^3/s, Aug. 21, 1902.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1873, that of Oct. 5, 1911, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,920 ft^3/s at 0630 June 9, gage height, 5.91 ft; minimum daily, 155 ft^3/s, Nov. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	520	468	188	220	180	220	295	1430	4450	2820	1740	494
2	612	419	216	190	170	230	330	1560	4630	2680	1840	488
3	681	425	212	200	175	230	384	2020	4690	2610	1900	481
4	737	419	238	220	180	220	462	2790	5000	2540	1800	407
5	713	401	231	230	185	220	488	3440	4980	2520	1660	401
6	697	419	201	230	190	250	612	3760	5300	2450	1580	384
7	665	390	198	230	195	280	705	3840	6330	2300	1520	384
8	642	390	223	240	200	270	813	4300	8010	2180	1350	384
9	635	378	235	250	200	290	857	4800	8710	2210	1250	378
10	628	305	238	220	220	290	893	5120	8220	2220	1140	384
11	628	325	255	220	200	290	1030	4710	7770	2190	1060	390
12	635	362	250	230	210	280	1090	4300	7440	2140	1070	779
13	705	346	250	210	220	270	1340	3520	7180	2220	938	590
14	721	346	250	210	220	286	1500	2790	6770	2160	893	494
15	697	310	250	200	220	305	1690	2450	6500	2160	902	548
16	658	281	231	210	220	295	1870	2360	6710	2180	866	737
17	697	325	235	210	230	281	1940	2450	6350	2190	830	620
18	665	310	223	230	250	305	2060	3000	5920	1970	822	605
19	658	268	230	240	230	310	2080	3040	5790	1970	857	1520
20	658	219	220	240	250	295	1800	2910	5600	1950	788	1250
21	642	219	220	240	240	315	1520	2930	5370	1950	822	1340
22	658	231	180	240	230	310	1340	2700	5210	2080	822	1240
23	658	246	170	230	230	268	1180	2680	4870	2000	762	1100
24	635	290	190	230	210	310	1100	3000	4630	1830	729	965
25	605	277	210	230	220	373	1120	3820	4910	1700	697	884
26	590	238	220	230	220	390	1060	4800	4600	1470	658	848
27	605	155	240	240	220	335	956	5810	3780	1430	590	884
28	590	158	270	230	220	305	1030	6210	3310	1400	548	875
29	583	259	260	220	---	295	1210	5760	3100	2360	562	1010
30	562	198	250	220	---	264	1260	5460	2950	2360	534	929
31	494	---	240	190	---	277	---	4940	---	2020	500	---
TOTAL	19874	9377	7024	6930	5935	8859	34015	112700	169080	66260	32030	21793
MEAN	641	313	227	224	212	286	1134	3635	5636	2137	1033	726
MAX	737	468	270	250	250	390	2080	6210	8710	2820	1900	1520
MIN	494	155	170	190	170	220	295	1430	2950	1400	500	378
AC-FT	39420	18600	13930	13750	11770	17570	67470	223500	335400	131400	63530	43230

CAL YR 1984	TOTAL	384261	MEAN	1050	MAX	6820	MIN	140	AC-FT	762200
WTR YR 1985	TOTAL	493877	MEAN	1353	MAX	8710	MIN	155	AC-FT	979600

08224110 SAN LUIS CREEK NEAR PONCHA PASS, CO

LOCATION.--Lat 38°24'22", long 106°03'49", in NE¼NE¼ sec.22, T.48 N., R.8 E., Saguache County, Hydrologic Unit 13010003, on right bank 0.1 mi east of U.S. Highway 285, 0.5 mi upstream from Round Hill Gulch, 1.3 mi downstream from Dorsey Creek, and 1.7 mi southeast of Poncha Pass.

DRAINAGE AREA.--6.57 mi².

PERIOD OF RECORD.--June 1979 to September 1985 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 8,780 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 7-14, Oct. 21 to Nov. 12, Dec. 12 to Apr. 7. Records good except for estimated daily discharges, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

Average Discharge.--6 years, 1.10 ft³/s; 797 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 45 ft³/s, July 26, 1982, gage height, unknown; maximum gage height, 1.23 ft, May 12, 1984; minimum daily discharge, 0.03 ft³/s, Aug. 8, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5.0 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Apr. 18	2100	5.0	1.07	Apr. 29	1430	6.4	1.21
Apr. 27	1930	5.3	1.13	May 6	0715	*7.1	*1.26

Minimum daily discharge, 0.57 ft³/s, Aug. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.75	1.2	.78	.76	.86	1.2	1.4	4.7	3.4	1.8	1.3	.59
2	.76	1.2	.78	.76	.82	1.2	1.4	4.6	3.3	1.7	1.2	.59
3	.82	1.2	.78	.76	.80	1.2	1.4	4.9	3.2	1.5	1.2	.95
4	1.5	1.1	.78	.78	.80	1.2	1.4	5.5	3.2	1.4	1.1	1.2
5	1.4	1.1	.78	.80	.80	1.2	1.4	5.8	3.1	1.3	1.1	.84
6	1.0	1.1	.78	.86	.80	1.2	1.5	6.5	3.1	1.3	1.0	.69
7	.90	1.1	.78	.92	.80	1.2	1.5	6.2	3.0	1.3	1.0	.70
8	.90	1.1	.78	.96	.80	1.2	1.6	6.2	2.9	1.3	.99	.70
9	.82	1.1	.78	1.0	.80	1.3	1.7	6.2	2.9	1.3	.97	.68
10	.85	1.0	.78	1.0	.82	1.3	1.7	5.9	2.9	1.3	.93	.66
11	.86	1.1	.76	1.0	.84	1.3	1.8	5.4	2.8	1.3	1.0	1.1
12	.88	1.3	.76	1.0	.86	1.3	1.9	5.0	2.7	1.3	.99	1.4
13	.95	1.5	.76	1.0	.90	1.3	2.0	4.7	2.6	1.3	.85	1.0
14	.95	.97	.76	1.0	.92	1.3	2.1	3.8	2.6	1.4	.81	.74
15	.91	1.4	.74	1.0	.94	1.3	2.3	3.5	2.4	1.4	.79	1.0
16	.91	1.2	.74	1.0	.96	1.3	2.6	3.6	2.3	1.4	.76	.96
17	1.5	1.0	.74	.98	.98	1.4	2.8	3.6	2.3	1.4	.65	.80
18	1.1	.98	.74	.98	1.0	1.4	3.6	3.5	2.2	1.4	.69	.85
19	1.1	1.1	.74	.98	1.0	1.4	3.5	3.6	2.2	1.4	.69	1.0
20	.99	1.0	.74	.98	1.1	1.4	3.2	3.5	2.1	1.6	.70	1.1
21	1.0	.98	.74	.96	1.1	1.4	3.1	3.8	2.0	1.6	.72	1.2
22	1.0	1.0	.74	.96	1.1	1.4	2.7	3.5	1.9	2.0	.65	1.1
23	1.5	.96	.74	.96	1.1	1.5	2.9	3.2	1.9	1.4	.58	1.0
24	1.1	.94	.76	.96	1.1	1.5	2.9	3.2	1.9	1.3	.58	.95
25	1.1	.90	.76	.96	1.1	1.5	3.0	3.3	2.0	1.4	.57	.92
26	1.2	.88	.76	1.0	1.1	1.5	3.1	3.4	1.9	1.2	.61	.87
27	1.2	.82	.76	1.0	1.2	1.5	3.7	3.4	1.8	1.1	.62	.87
28	1.2	.80	.76	.98	1.2	1.5	3.4	3.3	1.7	1.2	.71	.99
29	1.2	.80	.76	.96	---	1.5	4.6	3.5	1.7	2.2	.68	1.2
30	1.3	.80	.76	.94	---	1.4	4.3	3.3	1.8	1.6	.64	.98
31	1.2	---	.76	.90	---	1.4	---	3.4	---	1.5	.65	---
TOTAL	32.85	31.63	23.58	29.10	26.60	41.7	74.5	134.0	73.8	44.6	25.73	27.63
MEAN	1.06	1.05	.76	.94	.95	1.35	2.48	4.32	2.46	1.44	.83	.92
MAX	1.5	1.5	.78	1.0	1.2	1.5	4.6	6.5	3.4	2.2	1.3	1.4
MIN	.75	.80	.74	.76	.80	1.2	1.4	3.2	1.7	1.1	.57	.59
AC-FT	65	63	47	58	53	83	148	266	146	88	51	55

CAL YR 1984 TOTAL 447.00 MEAN 1.22 MAX 5.2 MIN .53 AC-FT 887
WTR YR 1985 TOTAL 565.72 MEAN 1.55 MAX 6.5 MIN .57 AC-FT 1120

08224113 SAN LUIS CREEK ABOVE VILLA GROVE, CO

LOCATION.--Lat 38°24'04", long 106°03'51", in SE¼NE¼ sec.22, T.47 S., R.8 E., Saguache County, Hydrologic Unit 13010003, on right bank 600 ft east of U.S. Highway 285, 0.2 mi upstream from Round Hill Gulch, 1.1 mi upstream from Lone Tree Creek, and 11.3 mi northwest of Villa Grove.

DRAINAGE AREA.--11.2 mi^2.

PERIOD OF RECORD.--June 1979 to September 1985 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 8,710 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 18 to Apr. 21. Records good except for periods of no gage- height record, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--6 years, 1.17 ft^3/s, 848 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 44 ft^3/s, July 26, 1982, gage height, 2.27 ft, from rating curve extended above 8.0 ft^3/s; minimum daily, 0.17 ft^3/s, Aug. 5, 6, 1981, Oct. 11, 12, 1983.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5.0 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 17	0545	6.0	1.34	May 21	1545	5.5	1.27
Apr. 27	1500	6.7	1.35	July 20	1430	*11	*1.59
Apr. 29	1500	8.5	1.48	July 22	1345	7.5	1.37
May 6	0730	8.2	1.45				

Minimum daily discharge, 0.63 ft^3/s, Aug. 24, Sept. 1-2, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.75	1.4	1.7	1.2	1.1	1.3	2.2	5.7	3.5	1.7	1.2	.63
2	.77	1.4	1.7	1.2	1.1	1.4	2.1	5.5	3.4	1.7	1.2	.63
3	.82	1.4	1.6	1.2	1.0	1.4	2.1	5.6	3.2	1.7	1.2	.98
4	1.7	1.3	1.6	1.2	1.0	1.4	2.1	6.2	3.2	1.6	1.1	1.2
5	1.5	1.3	1.6	1.2	1.0	1.5	2.1	6.7	3.1	1.5	1.0	.85
6	1.0	1.3	1.6	1.2	1.0	1.5	2.1	7.5	3.0	1.5	.97	.69
7	.91	1.3	1.6	1.3	1.0	1.5	2.1	7.1	2.9	1.5	.94	.66
8	.90	1.3	1.6	1.3	1.0	1.6	2.1	6.9	2.7	1.5	.94	.68
9	.83	1.3	1.5	1.3	1.0	1.6	2.2	6.9	2.8	1.5	.89	.65
10	.85	1.2	1.5	1.3	1.0	1.7	2.2	6.7	2.7	1.5	.87	.63
11	.87	1.3	1.5	1.4	1.0	1.7	2.3	5.9	2.6	1.4	.96	1.1
12	.88	1.5	1.5	1.4	1.0	1.8	2.4	5.4	2.4	1.4	.92	1.3
13	.97	1.8	1.5	1.4	1.1	1.9	2.5	5.1	2.4	1.4	.82	.97
14	1.0	1.7	1.5	1.4	1.1	1.9	2.6	4.1	2.3	1.4	.78	.94
15	.98	1.9	1.5	1.4	1.1	2.0	2.8	3.8	2.2	1.4	.75	1.3
16	1.0	1.9	1.4	1.3	1.1	2.1	3.0	3.9	2.1	1.4	.73	1.1
17	3.3	1.9	1.4	1.3	1.2	2.2	3.3	3.8	2.1	1.3	.65	.97
18	1.5	1.8	1.4	1.3	1.2	2.2	4.5	3.7	2.0	1.4	.68	1.0
19	1.2	1.8	1.4	1.3	1.2	2.3	4.0	3.9	2.0	1.4	.69	1.1
20	1.2	1.7	1.4	1.3	1.2	2.4	3.7	3.7	1.9	2.0	.74	1.3
21	1.2	1.7	1.3	1.3	1.2	2.5	3.5	4.1	1.9	1.5	.76	1.4
22	1.2	1.7	1.3	1.3	1.2	2.5	3.4	3.8	1.8	2.2	.70	1.3
23	2.0	1.7	1.3	1.3	1.3	2.6	3.2	3.4	1.8	1.5	.64	1.2
24	1.3	1.7	1.3	1.3	1.3	2.7	3.2	3.3	1.8	1.4	.63	1.1
25	1.3	1.7	1.3	1.3	1.3	2.7	3.4	3.3	1.9	1.5	.64	1.1
26	1.3	1.7	1.2	1.3	1.3	2.7	3.8	3.5	1.8	1.3	.67	1.1
27	1.4	1.7	1.2	1.3	1.3	2.7	5.0	3.5	1.8	1.3	.68	1.0
28	1.4	1.7	1.2	1.3	1.3	2.7	4.3	3.4	1.7	1.3	.77	1.2
29	1.4	1.7	1.2	1.2	---	2.5	6.3	3.6	1.7	2.3	.71	1.3
30	1.4	1.7	1.2	1.2	---	2.3	5.4	3.4	1.7	1.6	.66	1.1
31	1.5	---	1.2	1.1	---	2.2	---	3.6	---	1.5	.68	---
TOTAL	38.33	47.5	44.2	39.8	31.6	63.5	93.9	147.0	70.4	47.6	25.57	30.48
MEAN	1.24	1.58	1.43	1.28	1.13	2.05	3.13	4.74	2.35	1.54	.82	1.02
MAX	3.3	1.9	1.7	1.4	1.3	2.7	6.3	7.5	3.5	2.3	1.2	1.4
MIN	.75	1.2	1.2	1.1	1.0	1.3	2.1	3.3	1.7	1.3	.63	.63
AC-FT	76	94	88	79	63	126	186	292	140	94	51	60

CAL YR 1984 TOTAL 498.38 MEAN 1.36 MAX 5.5 MIN .54 AC-FT 989
WTR YR 1985 TOTAL 679.88 MEAN 1.86 MAX 7.5 MIN .63 AC-FT 1350

08226600 NOLAND GULCH TRIBUTARY RESERVOIR INFLOW NEAR VILLA GROVE, CO

LOCATION.--Lat 38°12'34", long 105°57'40", in NW¼SE¼ sec.27, T.46 N., R.9 E., Saguache County, Hydrologic Unit 13010003, on left bank at inflow site to a small channel reservoir 500 ft upstream from dam, 1.2 mi west along Bureau of Land Management road exiting U.S. Highway 285, and 2.7 mi south of Villa Grove.

DRAINAGE AREA.--0.08 mi^2.

PERIOD OF RECORD.--June 1979 to current year (seasonal record only).

GAGE.--Water-stage recorder and Parshall Flume. Elevation of gage is 8,000 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No eestimated daily discharges. Records good. Recording rain gage in basin upstream. This station is designed to evaluate rainfall runoff from a small drainage area into a small channel reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2.1 ft^3/s, Sept. 30, 1982, gage height, 3.65 ft; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1.8 ft^3/s at 1945 Sept. 11, gage height, 3.60 ft; no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

Sept. 11 0.01

08227300 ANACONDA RESERVOIR NEAR VILLA GROVE, CO

LOCATION.--Lat 38°08'48", long 106°00'36", in SW¼SW¼ sec.17, T.45 N., R.9 E., Saguache County, Hydrologic Unit 13010004, on top of earthfill dam near center, 0.4 mi upstream from Stonehouse Gulch, 0.5 mi upstream from Big Hollow Gulch, 1.5 mi north of junction of Bureau of Land Management road and U.S. Highway 285 and 7.7 mi south of Villa Grove.

DRAINAGE AREA.--0.17 mi².

PERIOD OF RECORD.--June 1979 to September 1985, seasonal record only (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 8,025 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated instantaneous contents ¼ 2400: Oct. 5-6. Records good except for estimated contents, which are fair. Reservoir is formed by an earthfill dam. Storage occurs intermittenly from storm runoff. Maximum storage is 4.97 acre-feet at a spillway gage height of 13.3 ft. No contents occur at a gage height of 3.34 ft. This dam forms a small channel reservoir for controlling heavy runoff and to help control sedimentation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 0.71 acre-ft, Sept. 30, 1982, gage neight, 7.45 ft; no contents most of time.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 0.04 acre-ft at 1630 Sept. 15, gage height, 3.96 ft; no contents most of time.

Capacity table (elevation, in feet, and total contents, in acre-feet)

3.3	0
5.6	0.20

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00						---	.00	.00	.00	.00	.00
2	.00						---	.00	.00	.00	.00	.00
3	.00						---	.00	.00	.00	.00	.00
4	.03						---	.00	.00	.00	.00	.00
5	.02						---	.00	.00	.00	.00	.00
6	.01						---	.00	.00	.00	.00	.00
7	.00						---	.00	.00	.00	.00	.00
8	.00						---	.00	.00	.00	.00	.00
9	.00						---	.00	.00	.00	.00	.00
10	.00						---	.00	.00	.00	.00	.00
11	.00						---	.00	.00	.00	.00	.03
12	.00						---	.00	.00	.00	.00	.00
13	.00						---	.00	.00	.00	.00	.00
14	.00						---	.00	.00	.00	.00	.00
15	.00						---	.00	.00	.00	.00	.04
16	---						---	.00	.00	.00	.00	.02
17	---						---	.00	.00	.00	.00	.00
18	---						---	.00	.00	.00	.00	.02
19	---						---	.00	.00	.00	.00	.00
20	---						---	.00	.00	.00	.00	.02
21	---						---	.00	.00	.00	.00	.00
22	---						.00	.00	.00	.00	.00	.00
23	---						.00	.00	.00	.00	.00	.00
24	---						.00	.00	.00	.00	.00	.00
25	---						.00	.00	.00	.00	.00	.00
26	---						.02	.00	.00	.00	.00	.00
27	---						.01	.00	.00	.00	.00	.00
28	---						.00	.00	.00	.00	.00	.00
29	---						.00	.00	.00	.00	.00	.00
30	---						.00	.00	.00	.00	.00	.00
31	---						---	.00	---	.00	.00	---
MAX	---						---	.00	.00	.00	.00	.04
MIN	---						---	.00	.00	.00	.00	.00

08227400 TRACY PIT RESERVOIR INFLOW NEAR SAGUACHE, CO

LOCATION.--Lat 38°02'44", long 106°13'06", in SE¼SE¼ sec.20, T.44 N., R.7 E., Saguache County, Hydrologic Unit 13010004, on left bank 0.5 mi upstream from mouth at North Tracy Canyon, 5.1 mi southwest of Saguache, and 5.4 mi northwest of U.S. Highway 285 at Swede Corners.

DRAINAGE AREA.--0.05 mi^2.

PERIOD OF RECORD.--June 1979 to current year (seasonal record only).

GAGE.--Water-stage recorder and Parshall Flume. Elevation of gage is 8,190 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 4-15, Aug. 19-28. Records good except for estimated daily discharges, which are fair. Recording rain gage in basin upstream. This station is designed to evaluate rainfall-runoff from a small drainage area into a small channel reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4.3 ft^3/s, Aug. 25, 1982, gage height, 4.05 ft; no flow most of time.

EXTREMES FOR CURRENT YEAR.--No flow for current season.

08238350 YELLOW WARBLER RESERVOIR INFLOW NEAR ANTONITO, CO

LOCATION.--Lat 37°06'00", long 106°06'44", in NE¼SE¼ sec.17, T.33 N., R.8 E., Conejos County, Hydrologic Unit 13010002, on left bank, 400 ft upstream from Yellow Warbler Dam, 0.4 mi south of the geologic basin known as The Poso, and 6.0 mi west of Antonito.

DRAINAGE AREA.--0.18 mi².

PERIOD OF RECORD.--June 1979 to current year (seasonal record only).

GAGE.--Water-stage recorder and Parshall flume. Elevation of gage is 8,380 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Apr. 24 to May 29. Records good except for periods of estimated daily discharges which are fair. Recording rain gage in basin upstream. This station is designed to evaluate rainfall-runoff from a small drainage area into a small channel reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17 ft³/s, Aug. 16, 1982, gage height, 4.97 ft; no flow most of time.

EXTREMES FOR CURRENT YEAR.--No flow for the current season.

08238380 TURKEY RESERVOIR INFLOW NEAR CONEJOS, CO

LOCATION.--Lat 37°08'16", long 106°06'41", in SE¼SE¼ sec,32, T.34 N., R.8 E., Conejos County, Hydrologic Unit 13010002, on left bank 300 ft upstream from Turkey Dam, 0.4 mi upstream from mouth at the geologic basin known as The Poso, and 6.2 mi northwest of Conejos.

DRAINAGE AREA.--0.24 mi^2.

PERIOD OF RECORD.--June 1979 to current year (seasonal record only).

GAGE.--Water-stage recorder and Parshall flume. Elevation of gage is 8,280 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Recording rain gage in basin upstream. This station is designed to evaluate rainfall-runoff from small drainage area into a small channel reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7.5 ft^3/s, Aug. 11, 1981, gage height, 4.16 ft; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 0.18 ft^3/s at 1430 Sept. 15, gage height, 3.11 ft; (mean daily discharge for Sept. 15, was 0.0 ft^3/s), only flow this season.

08238400 BOBOLINK RESERVOIR NEAR CONEJOS, CO

LOCATION.--Lat 37°09'10", long 106°10'18", in SW¼SE¼ sec.26, T.34 N., R.7 E., Conejos County, Hydrologic Unit 13010002, on top of earthfill dam near Center, 0.7 mi southeast of Flat Top Mountain, 5.3 mi north of Los Mogotes Peaks and 9.4 mi northwest of Conejos.

DRAINAGE AREA.--0.23 mi².

PERIOD OF RECORD.--June 1979 to current year (seasonal record only).

GAGE.--Water-stage recorder. Elevation of gage is 8,800 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good. Reservoir is formed by an earthfill dam. Storage occurs intermittenly from storm runoff. Maximum storage is 1.0 acre-ft, at a spillway gage height of 7.1 ft. No contents occur at a gage height of 3.42 ft. This dam forms a small channel reservoir for controlling heavy runoff and to help control sedimentation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 2.4 acre-ft, Sept. 9, 1982, gage height, 9.13 ft; no contents most of time.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 0.27 acre-ft at 0345 July 20, gage height, 5.57 ft; no contents most of time.

Capacity table (elevation, in feet, and total contents, in acre-feet)

3.5	0.01	5.5	0.25
4.5	0.06	6.5	0.67

RESVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00						---	.00	.00	.00	.09	.00
2	.00						---	.00	.00	.00	.09	.00
3	.00						---	.00	.00	.00	.08	.00
4	.00						---	.00	.00	.00	.08	.00
5	.00						---	.00	.00	.00	.07	.00
6	.00						---	.00	.00	.00	.06	.00
7	.00						---	.00	.00	.00	.05	.00
8	.00						---	.00	.00	.00	.04	.00
9	.00						---	.00	.00	.00	.03	.00
10	.00						---	.00	.00	.00	.02	.00
11	.00						---	.00	.00	.00	.02	.00
12	.00						---	.00	.00	.00	.02	.00
13	---						---	.00	.00	.00	.02	.00
14	---						---	.00	.00	.00	.00	.00
15	---						---	.00	.00	.00	.00	.00
16	---						---	.00	.00	.00	.00	.00
17	---						---	.00	.00	.00	.00	.00
18	---						---	.00	.00	.00	.00	.00
19	---						---	.00	.00	.00	.00	.00
20	---						---	.00	.00	.20	.00	.00
21	---						---	.00	.00	.17	.00	.00
22	---						---	.00	.00	.17	.00	.00
23	---						---	.00	.00	.18	.00	.00
24	---						.00	.00	.00	.16	.00	.00
25	---						.00	.00	.00	.15	.00	.00
26	---						.00	.00	.00	.14	.00	.00
27	---						.00	.00	.00	.12	.00	.00
28	---						.00	.00	.00	.13	.00	.00
29	---						.00	.00	.00	.13	.00	.00
30	---						.00	.00	.00	.11	.00	.00
31	---						---	.00	---	.10	.00	---
MAX	---						---	.00	.00	.20	.09	.00
MIN	---						---	.00	.00	.00	.00	.00

08240000 RIO GRANDE ABOVE MOUTH OF TRINCHERA CREEK, NEAR LASAUSES, CO

LOCATION.--Lat 37°18'58", long 105°44'32", in sec.35, T.36 N., R.11 E., Conejos County, Hydrologic Unit 13010002, on right bank 0.2 mi upstream from Trinchera Creek, 3.2 mi north of Lasauses, and 13 mi southeast of Alamosa.

DRAINAGE AREA.--5,740 mi^2, approximately, includes 2,940 mi^2 in closed basin in northern part of San Luis Valley, Co.

PERIOD OF RECORD.--May 1936 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 7,500 ft, estimated from nearby level lines.

REMARKS.--Estimated daily discharges: Nov. 25 to Dec. 10, Dec. 14 to Mar. 7, Mar. 9-26. Records good except for estimated daily discharges, which are poor. Natural flow of stream affected bytransmountain diversions, storage reservoirs, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--49 years, 251 ft^3/s; 181,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,470 ft^3/s, June 21, 1949, gage height, 9.50 ft, from rating curve extended above 3,600 ft^3/s; minimum daily, 0.4 ft^3/s, July 4, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,700 ft^3/s at 1430 June 13, gage height, 8.85 ft; minimum daily, 33 ft^3/s, Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	133	230	180	225	365	388	1320	2480	1070	408	51
2	121	152	255	230	195	305	426	1360	2340	874	358	49
3	112	293	240	195	175	320	456	1380	2120	730	308	47
4	128	432	255	185	160	365	486	1470	1930	586	288	45
5	133	483	250	200	175	345	537	1620	1920	483	322	41
6	130	507	230	235	180	325	586	1850	2010	694	292	40
7	114	510	250	225	185	330	622	2150	2130	662	253	38
8	104	510	285	210	200	382	734	2480	2140	468	226	35
9	105	498	375	195	180	335	856	2620	2260	435	222	34
10	103	486	340	270	180	435	960	2660	2550	380	192	33
11	121	456	298	255	200	615	1020	2770	2950	405	175	35
12	127	429	322	225	200	545	1090	2860	3350	315	166	45
13	115	447	325	240	205	475	1180	2940	3660	263	158	51
14	122	474	240	245	220	510	1240	2860	3570	222	151	78
15	136	462	185	225	245	495	1350	2560	3420	205	146	101
16	143	450	170	220	250	465	1500	2150	3250	192	146	84
17	144	429	250	215	255	465	1570	1650	3060	177	130	93
18	146	418	295	225	280	475	1690	1440	2900	177	120	143
19	133	438	245	235	300	460	1840	1490	2900	152	112	128
20	138	418	200	250	295	440	1940	1620	2820	151	103	120
21	132	388	220	270	290	430	1990	1650	2680	143	96	302
22	135	350	200	270	270	410	2020	1540	2560	147	94	251
23	136	352	180	265	285	380	1930	1480	2510	211	89	251
24	141	362	165	260	300	365	1720	1380	2450	305	83	205
25	147	325	180	265	305	385	1530	1360	2360	310	76	168
26	146	185	230	265	320	460	1310	1380	2160	298	71	138
27	147	195	250	255	340	426	1280	1450	2080	258	66	154
28	143	235	275	250	360	426	1260	1600	2070	214	63	205
29	128	195	280	225	---	390	1230	1850	1740	207	59	205
30	121	205	305	215	---	375	1260	2260	1320	222	57	184
31	118	---	245	205	---	315	---	2500	---	423	54	---
TOTAL	3954	11217	7770	7205	6775	12814	36001	59700	75690	11379	5084	3354
MEAN	128	374	251	232	242	413	1200	1926	2523	367	164	112
MAX	147	510	375	270	360	615	2020	2940	3660	1070	408	302
MIN	85	133	165	180	160	305	388	1320	1320	143	54	33
AC-FT	7840	22250	15410	14290	13440	25420	71410	118400	150100	22570	10080	6650

CAL YR 1984 TOTAL 109583 MEAN 299 MAX 1780 MIN 55 AC-FT 217400
WTR YR 1985 TOTAL 240943 MEAN 660 MAX 3660 MIN 33 AC-FT 477900

08244500 PLATORO RESERVOIR AT PLATORO, CO

LOCATION.--Lat 37°21'07", long 106°32'38", Conejos County, Hydrologic Unit 13010005, on right bank in valvehouse, 400 ft downstream from Platoro Dam on Conejos River and 0.7 mi west of Platoro.

DRAINAGE AREA.--40 mi², approximately.

PERIOD OF RECORD.--November 1951 to current year.

GAGE.--Nonrecording gage. Datum of gage is 9,911.5 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations NGVD. Prior to June 9, 1955, nonrecording gage at present site and datum. June 9, 1955 to Sept. 30, 1959, water-stage recorder in gate chamber at dam for elevations above 9,921.0 ft, at same datum.

REMARKS.--Reservoir is formed by an earth and rockfill dam and dikes. Dam completed Dec. 9, 1951; storage began Nov. 7, 1951. Capacity of reservoir (based on revised capacity table put in use Jan. 1, 1975), 59,570 acre-ft, between elevations 9,911.5 ft, sill of trashrack at outlet, and 10,034.0 ft, crest of spillway. No dead storage. Reservoir is used for irrigation and flood control. Figures given are usable contents.

COOPERATION.--Records provided by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 61,420 acre-ft, June 9, 11, 1958, elevation, 10,035.5 ft; no contents for long periods in 1952-56.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 34,320 acre-ft, June 3, July 9, and Oct. 19, elevation, 10,004.6 ft; minimum contents, 13,950 acre-ft, Apr. 3, elevation, 9,971.5 ft.

REVISIONS.--Water year 1984 was published in error the correct figures are given below. These figures supersede those published in the report for 1984.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 1000, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	9,972.5	14,440	-
Oct. 31	10,004.2	14,200	-240
Nov. 30	10,004.3	14,300	+100
Dec. 31	10,004.2	14,300	0
CAL YR 1983			+19,720
Jan. 31	9,971.9	14,150	-19,870
Feb. 29	9,972.1	14,250	+100
Mar. 31	9,972.0	14,200	-50
Apr. 30	9,972.0	14,200	0
May 31	10,003.9	33,800	+19,600
June 30	10,004.2	34,020	+220
July 31	10,004.2	34,020	0
Aug. 31	10,004.2	34,020	0
Sept. 30	10,004.2	34,020	0
WTR YR 1984			-140

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 1000, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	10,004.2	34,020	
Oct. 31	10,004.2	34,020	0
Nov. 30	10,004.3	34,100	+80
Dec. 31	10,004.2	34,020	-80
CAL YR 1984			0
Jan. 31	10,004.4	34,170	+150
Feb. 28	10,004.2	34,020	-150
Mar. 31	10,003.7	33,650	-370
Apr. 30	9,995.0	27,510	-6,140
May 31	9,995.6	27,920	+410
June 30	10,029.4	55,260	+27,340
July 31	10,027.3	53,320	-1,940
Aug. 31	10,027.5	53,510	+190
Sept. 30	10,027.5	53,510	0
WTR YR 1985			+19,490

08245000 CONEJOS RIVER BELOW PLATORO RESERVOIR, CO

LOCATION.--Lat 37°21'18", long 106°32'37", Conejos County, Hydrologic Unit 13010005, on left bank 1,100 ft downstream from valvehouse for Platoro Reservoir and 0.7 mi northwest of Platoro.

DRAINAGE AREA.--40 mi^2, approximately.

PERIOD OF RECORD.--May 1952 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 9,866.60 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Estimated daily discharges: Nov. 19 to Apr. 12, July 5-7. Records good. No diversion above station. Flow completely regulated by Platoro Reservoir (station 08244500). Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--33 years, 91.8 ft^3/s; 66,510 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,160 ft^3/s, Nov. 1, 1957, gage height, 4.02 ft; maximum gage height, 4.29 ft, June 15, 1958; no flow Oct. 16-20, 1955.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 5, 1911, is the greatest since at least 1854, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,020 ft^3/s at 0630 June 30, gage height, 3.62 ft; minimum daily, 2.0 ft^3/s, Jan. 15, Feb. 14-20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	10	11	7.0	17	5.0	7.0	492	525	944	86	24
2	21	13	11	7.0	17	5.0	7.0	108	440	752	211	24
3	47	19	11	7.0	17	5.0	7.0	263	510	510	310	39
4	64	22	11	7.0	17	70	6.0	261	570	525	252	38
5	52	51	11	7.0	17	45	5.0	84	594	552	158	33
6	14	41	11	7.0	5.0	4.0	5.0	13	582	520	97	33
7	14	25	11	7.0	4.0	4.0	5.0	13	431	416	114	24
8	59	25	11	7.0	4.0	4.0	5.0	13	72	360	134	19
9	97	25	11	13	4.0	3.0	5.0	13	12	336	136	19
10	66	25	11	9.0	4.0	3.0	5.0	14	12	336	118	19
11	38	25	14	5.0	4.0	3.0	5.0	13	12	368	97	20
12	49	25	30	5.0	4.0	3.0	38	13	12	388	48	48
13	60	25	38	5.0	4.0	3.0	79	13	12	376	52	72
14	60	25	38	5.0	2.0	3.0	103	96	12	368	61	46
15	78	25	38	2.0	2.0	3.0	71	282	39	348	61	67
16	64	25	22	19	2.0	3.0	14	500	53	320	61	108
17	24	25	6.5	24	2.0	3.0	14	684	114	292	54	74
18	24	25	6.5	12	2.0	3.0	14	744	234	221	51	51
19	46	25	6.5	12	2.0	3.0	14	736	392	267	51	147
20	72	25	6.5	12	2.0	3.0	13	714	480	205	34	255
21	72	13	16	12	6.0	3.0	188	744	588	150	22	210
22	48	6.5	14	12	6.0	3.0	408	576	576	185	22	162
23	69	6.5	6.5	6.0	6.0	3.0	510	340	564	218	27	80
24	136	13	6.5	6.0	6.0	3.0	606	255	672	188	27	57
25	57	20	6.5	6.0	6.0	3.0	736	200	364	138	29	79
26	11	20	6.5	6.0	6.0	16	816	200	384	88	49	92
27	23	10	20	6.0	5.0	40	832	202	816	92	52	101
28	18	5.0	58	6.0	5.0	64	840	202	968	128	31	97
29	7.6	9.0	36	6.0	---	64	322	205	984	254	19	85
30	10	11	6.5	11	---	86	317	306	968	376	27	62
31	10	---	6.5	17	---	9.0	---	480	---	217	26	---
TOTAL	1433.6	620.0	499.0	273.0	178.0	472.0	5997.0	8779	11992	10438	2517	2185
MEAN	46.2	20.7	16.1	8.81	6.36	15.2	200	283	400	337	81.2	72.8
MAX	136	51	58	24	17	86	840	744	984	944	310	255
MIN	7.6	5.0	6.5	2.0	2.0	3.0	5.0	13	12	88	19	19
AC-FT	2840	1230	990	541	353	936	11900	17410	23790	20700	4990	4330

CAL YR 1984 TOTAL 33593.6 MEAN 91.8 MAX 795 MIN 4.0 AC-FT 66630
WTR YR 1985 TOTAL 45383.6 MEAN 124 MAX 984 MIN 2.0 AC-FT 90020

NOTE.--NO GAGE-HEIGHT RECORD NOV. 19 TO APR. 12.

08246500 CONEJOS RIVER NEAR MOGOTE, CO

LOCATION.--Lat 37°03'14", long 106°11'13", in SE¼SE¼ sec.34, T.33 N., R.7 E., Conejos County, Hydrologic Unit 13010005, on right bank 25 ft upstream from bridge on State Highway 174, 0.4 mi downstream from Fox Creek, 5.3 mi west of Mogote, and 10 mi west of Antonito.

DRAINAGE AREA.--282 mi².

PERIOD OF RECORD.--April 1903 to October 1905, October 1911 to current year. Monthly discharge only for some periods, published in WSP 1312. Records for March 1910 at site 5.5 mi upstream and May 1905 to September 1911 (some missing periods most years) at site 3.2 mi upstream not equivalent to present site due to inflow.

REVISED RECORDS.--WSP 898: 1911(M). WSP 1312: 1903-5, 1913. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 8,271.54 ft, Colorado State Highway datum. Apr. 17, 1903, to Oct. 31, 1905, nonrecording gage 500 ft downstream at different datum. Oct. 5, 1911, to early 1915, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Nov. 19-24, 26-28, Dec. 1, 14-18, Dec. 21 to Jan. 5, 20-22, Feb. 1-9. Records good except estimated daily discharges, which are fair. Diversions for irrigation of about 500 acres of hay meadows above station. Some regulation by Platoro Reservoir (station 08244500). Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--76 years, 334 ft³/s; 242,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,000 ft³/s, Oct. 5, 1911, gage height, 8.50 ft, from floodmarks, present site and datum, from rating curve extended above 3,100 ft³/s; minimum daily determined, 10 ft³/s, July 18, 1904.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1854, that of Oct. 5, 1911, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,920 ft³/s at 1200 June 25, gage height, 5.43 ft; minimum daily, 48 ft³/s, many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	79	109	79	80	52	51	134	1290	1990	1730	392	109
2	96	106	75	58	48	53	114	775	1990	1650	456	106
3	111	111	75	64	49	59	128	960	2060	1390	665	109
4	148	111	79	70	50	68	167	1650	2170	1260	620	114
5	142	111	79	74	52	57	201	1780	1960	1300	489	111
6	119	134	75	77	54	64	257	1660	1900	1240	384	106
7	101	114	75	75	52	82	332	1680	2300	1120	313	101
8	98	106	79	72	54	79	440	1720	2490	980	332	101
9	136	101	82	70	56	79	516	1720	2610	930	340	96
10	167	84	68	68	53	96	525	1730	2550	950	313	93
11	134	101	70	66	50	134	561	1520	2430	935	292	103
12	125	101	68	66	48	134	720	1240	2150	895	282	164
13	139	101	70	62	48	122	860	1050	2050	935	208	145
14	151	101	88	62	48	116	925	880	1910	925	201	148
15	148	93	90	60	48	103	1090	965	1870	875	198	131
16	167	93	98	60	48	96	1090	1210	1990	815	184	208
17	142	98	94	59	50	106	1190	1510	1790	730	177	208
18	116	96	76	60	50	98	1160	1670	1760	695	161	158
19	128	88	72	64	50	101	1020	1750	1830	633	158	271
20	154	77	75	64	51	96	795	1660	2120	588	154	384
21	164	79	64	64	50	96	715	1690	2120	538	145	507
22	158	84	52	65	50	91	895	1570	2250	502	125	380
23	134	86	50	66	50	84	945	1260	1970.	516	125	320
24	167	82	52	62	48	88	1020	1150	1970	520	119	198
25	201	77	56	62	48	96	1180	1270	2470	432	122	187
26	125	68	60	60	48	109	1300	1480	1710	384	128	194
27	111	64	80	60	48	103	1300	1800	1670	316	134	201
28	116	82	100	59	50	98	1330	1880	1910	336	134	212
29	111	84	110	59	---	103	1210	1990	1850	574	114	236
30	103	84	130	59	---	145	579	1880	1790	730	103	198
31	111	---	90	59	---	177	---	2010	---	620	106	---
TOTAL	4102	2826	2411	2006	1403	2984	22699	46400	61630	26044	7674	5599
MEAN	132	94.2	77.8	64.7	50.1	96.3	757	1497	2054	840	248	187
MAX	201	134	130	80	56	177	1330	2010	2610	1730	665	507
MIN	79	64	50	58	48	51	114	775	1670	316	103	93
AC-FT	8140	5610	4780	3980	2780	5920	45020	92030	122200	51660	15220	11110

CAL YR 1984 TOTAL 124844 MEAN 341 MAX 2590 MIN 50 AC-FT 247600
WTR YR 1985 TOTAL 185778 MEAN 509 MAX 2610 MIN 48 AC-FT 368500

08247500 SAN ANTONIO RIVER AT ORTIZ, CO

LOCATION.--Lat 36°59'35", long 106°02'17", in NE¼SE¼ sec.24, T.32 N., R.8 E., Rio Arriba County, New Mexico, Hydrologic Unit 13010005, on left bank 800 ft south of Colorado-New Mexico State line, 0.4 mi southeast of Ortiz, and 0.4 mi upstream from Los Pinos River.

DRAINAGE AREA.--110 mi^2, approximately.

PERIOD OF RECORD.--April 1919 to October 1920, October 1924 to current year (no winter records prior to 1941). Monthly discharge only for some periods, published in WSP 1312.

REVISED RECORDS.--WSP 1732: 1951. WSP 1923: 1927 (monthly runoff).

GAGE.--Water-stage recorder. Elevation of gage is 7,970 ft, from topographic map. Prior to Apr. 7, 1926, nonrecording gage at various locations near present site, at different datums. Apr. 7, 1926, to June 24, 1954, water-stage recorder at site 200 ft downstream, at present datum.

REMARKS.--Estimated daily discharges: Nov. 10, 13, 15-19, 21, Nov. 28 to Mar. 12, Mar. 20-23, 30-31. Records good except for estimated daily discharges, which are fair. A few small diversions above station for irrigation. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--45 years (1940-85), 25.8 ft^3/s; 18,690 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,750 ft^3/s, Apr. 15, 1937, gage height, 5.38 ft, from rating curve extended above 1,100 ft^3/s; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 5, 1911, is the greatest since at least 1854, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 330 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 5	0400	*895	*4.71	No other peak greater than base discharge.			

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	8.8	3.0	5.0	2.5	6.0	17	225	78	3.2	2.8	.00
2	.00	8.4	3.0	5.0	2.5	8.0	17	259	65	3.0	2.8	.00
3	.00	7.5	3.0	5.0	2.5	7.5	69	385	59	2.5	4.7	.00
4	.00	7.0	4.0	5.0	3.0	7.5	217	600	52	2.5	5.4	.00
5	.36	6.2	4.0	5.0	3.0	15	302	692	66	2.0	6.2	.00
6	2.2	5.8	3.0	5.0	3.0	55	360	628	58	1.6	3.2	.00
7	2.0	6.2	3.0	5.5	3.0	80	394	588	48	.90	2.0	.00
8	1.4	5.8	4.0	5.5	3.5	100	399	528	42	1.0	1.4	.00
9	1.4	5.8	4.5	5.0	4.5	120	340	492	37	.90	1.0	.00
10	1.4	4.3	4.5	5.0	4.0	140	309	492	34	1.4	.60	.00
11	1.4	4.3	5.0	4.5	3.5	170	342	416	30	2.2	.60	.00
12	1.2	6.2	5.0	4.5	3.5	150	365	312	26	1.6	.50	.00
13	1.0	6.2	4.5	4.0	4.0	89	365	248	24	1.8	1.6	2.6
14	2.0	6.6	4.5	3.5	4.0	85	371	196	19	1.8	1.4	2.2
15	2.5	5.0	4.0	3.5	4.0	60	402	171	18	1.2	.60	1.6
16	2.8	4.3	4.5	4.0	4.5	39	428	182	16	.75	.50	2.5
17	3.6	6.2	3.5	4.0	4.5	40	428	198	14	.50	.10	2.0
18	5.4	4.6	3.0	4.0	5.0	38	479	216	14	.90	.00	2.2
19	2.8	2.8	3.5	4.5	4.5	28	464	208	16	1.2	.00	1.8
20	5.0	3.0	3.5	4.5	6.0	23	280	187	12	1.0	.00	3.9
21	6.6	3.6	3.0	5.0	5.0	24	238	171	10	2.2	.00	15
22	5.8	3.6	2.5	5.0	5.0	21	193	161	8.8	4.3	.00	12
23	5.4	4.3	2.5	4.5	4.5	15	155	153	8.0	7.0	.00	9.3
24	5.4	5.4	2.5	4.5	4.0	18	139	155	6.6	5.0	.00	7.0
25	5.8	6.2	3.0	4.5	4.5	49	156	140	7.5	4.0	.00	5.0
26	5.8	4.6	3.0	4.5	5.5	64	164	139	9.3	2.5	.00	3.6
27	5.8	2.2	4.0	5.0	5.5	27	160	128	7.5	2.5	.00	3.0
28	7.0	3.0	6.0	3.5	6.0	20	187	112	5.8	3.0	.00	2.8
29	7.0	3.5	5.5	4.0	---	22	229	100	4.3	2.5	.00	2.5
30	6.6	3.0	5.0	4.0	---	18	198	86	4.0	3.2	.00	4.0
31	6.6	---	5.0	3.0	---	20	---	78	---	4.3	.00	---
TOTAL	104.26	154.4	119.0	139.5	115.0	1559.0	8167	8646	799.8	72.45	35.40	83.00
MEAN	3.36	5.15	3.84	4.50	4.11	50.3	272	279	26.7	2.34	1.14	2.77
MAX	7.0	8.8	6.0	5.5	6.0	170	479	692	78	7.0	6.2	15
MIN	.00	2.2	2.5	3.0	2.5	6.0	17	78	4.0	.50	.00	.00
AC-FT	207	306	236	277	228	3090	16200	17150	1590	144	70	165

CAL YR 1984	TOTAL	10366.60	MEAN	28.3	MAX	452	MIN	.00	AC-FT	20560
WTR YR 1985	TOTAL	19994.81	MEAN	54.8	MAX	692	MIN	.00	AC-FT	39660

08248000 LOS PINOS RIVER NEAR ORTIZ, CO

LOCATION.--Lat 36°58'56", long 106°04'23", on line between secs.26 and 27, T.32 N., R.8 E., Rio Arriba County, New Mexico, Hydrologic Unit 13010005, on left bank 0.9 mi south of Colorado-New Mexico State line, 2.1 mi southwest of Ortiz, and 2.9 mi upstream from mouth.

DRAINAGE AREA.--167 mi^2.

PERIOD OF RECORD.--January 1915 to December 1920, October 1924 to current year. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Elevation of gage is 8,040 ft, from topographic map. Prior to Apr. 15, 1955, at site 350 ft upstream at datum 2.52 ft, higher.

REMARKS.--Estimated daily discharges: Nov. 9-12, Nov. 15 to Mar. 15. Records good except for estimated daily discharges, which are fair. Diversions above station for irrigation. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--66 years, 120 ft^3/s; 86,940 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,160 ft^3/s, May 12, 1941, gage height, 5.77 ft, site and datum then in use, from rating curve extended above 1,600 ft^3/s; minimum observed, 4.0, ft^3/s Dec. 17, 1945 (discharge measurement) but may have been less during periods of no gage-height record.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 5, 1911, is the greatest since at least 1854, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 9	0100	*2,020	*6.26	May 27	0030	1,290	5.26

Minimum daily discharge, 13 ft^3/s, Oct. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	42	24	30	16	20	40	480	906	215	79	22
2	31	38	24	26	15	24	45	552	888	202	126	24
3	47	39	26	26	16	22	77	815	865	192	122	24
4	56	38	28	28	18	20	110	1270	805	178	130	24
5	45	35	28	28	18	26	132	1540	735	168	99	23
6	37	36	24	28	18	50	157	1630	705	160	82	22
7	35	36	24	30	18	56	202	1670	795	151	72	20
8	30	37	26	32	18	60	261	1730	894	145	65	20
9	30	30	26	26	20	68	297	1680	984	145	61	18
10	29	26	26	24	18	78	350	1700	894	164	58	18
11	29	33	30	24	16	84	460	1480	882	138	64	23
12	30	37	28	24	18	80	564	1180	800	122	79	49
13	42	32	26	22	20	70	630	924	755	116	61	28
14	37	33	26	20	20	58	715	720	705	112	50	24
15	38	20	24	20	20	52	830	634	675	114	44	24
16	32	24	24	22	20	49	918	705	666	122	42	34
17	35	27	22	22	20	44	1100	820	630	98	38	32
18	13	21	20	22	22	47	1100	924	576	91	36	28
19	38	20	22	24	20	42	918	972	524	89	34	76
20	48	18	22	24	24	49	666	912	508	84	34	66
21	43	18	20	26	20	43	540	815	504	84	36	98
22	43	20	18	26	20	45	440	775	476	114	32	87
23	41	22	16	24	20	40	360	780	432	87	29	71
24	41	24	18	22	18	45	329	876	402	70	27	52
25	41	22	18	22	18	52	340	1030	589	64	30	44
26	34	20	22	22	20	59	329	1200	440	72	27	39
27	43	18	28	24	20	52	326	1290	340	61	25	36
28	36	20	35	18	20	44	368	1260	288	56	25	39
29	36	24	32	20	---	42	406	1210	255	153	24	91
30	41	22	30	20	---	47	388	1050	228	160	24	54
31	43	---	30	18	---	42	---	1010	---	101	23	---
TOTAL	1143	832	767	744	531	1510	13398	33634	19146	3828	1678	1210
MEAN	36.9	27.7	24.7	24.0	19.0	48.7	447	1085	638	123	54.1	40.3
MAX	56	42	35	32	24	84	1100	1730	984	215	130	98
MIN	13	18	16	18	15	20	40	480	228	56	23	18
AC-FT	2270	1650	1520	1480	1050	3000	26570	66710	37980	7590	3330	2400

CAL YR 1984 TOTAL 51743 MEAN 141 MAX 1460 MIN 13 AC-FT 102600
WTR YR 1985 TOTAL 78421 MEAN 215 MAX 1730 MIN 13 AC-FT 155500

NOTE.--NO GAGE-HEIGHT RECORD JAN. 31 TO MAR. 1.

08249000 CONEJOS RIVER NEAR LASAUSES, CO

LOCATION.--Lat 37°18'01", long 105°44'47", in SW¼SW¼ sec.2, and SE¼NE¼ sec.10 (two channels), T.35 N., R.11 E., Conejos County, Hydrologic Unit 13010005, on left bank of main channel 125 ft downstream from bridge on State Highway 158 and on left bank of secondary channel 230 ft upstream from bridge on State Highway 158, 1.0 mi upstream from mouth, 2.1 mi north of Lasauses, and 13 mi southeast of Alamosa.

DRAINAGE AREA.--887 mi^2.

PERIOD OF RECORD.--March 1921 to current year. Monthly discharge only for some periods, published in WSP 1312. Prior to Oct. 1, 1966, published as "near La Sauses."

REVISED RECORDS.--WSP 1312: 1934(M).

GAGE.--Two water-stage recorders. Datum of gage on main (north) channel is 7,495.02 ft above and on secondary (south) channel is 7,496.89 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Main channel: See WSP 1732 for history of changes prior to Oct. 1, 1937. South channel: Prior to Oct. 23, 1934, at bridge 230 ft downstream at datum 0.56 ft, lower; Oct. 23, 1934, to May 3, 1936, at site 250 ft downstream, and May 4, 1936, to Oct. 13, 1965, at site 280 ft downstream, at datum 1.00 ft, lower.

REMARKS.--Estimated daily discharges: Dec. 21-26, Jan. 2-7, 11-18, 30, 31, Feb. 1-8, 11,12. Records good. Diversions for irrigation of about 75,000 acres above station. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--64 years, 187 ft^3/s; 135,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,890 ft^3/s, May 15, 1941; no flow at times some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 5, 1911, is the greatest since at least 1854, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,060 ft^3/s May 7; minimum daily, 3.9 ft^3/s, Sept. 7

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	26	81	140	71	120	234	794	1420	1310	236	5.3
2	15	26	83	92	69	130	219	1040	1430	1230	232	5.3
3	15	30	85	96	73	140	209	832	1450	1050	292	5.0
4	18	30	85	102	77	119	250	1130	1450	727	316	5.0
5	19	37	85	102	75	123	411	1600	1450	610	297	4.7
6	18	44	78	102	77	143	500	1910	1440	483	231	4.4
7	17	56	78	108	81	143	603	2010	1450	394	185	3.9
8	17	84	81	110	86	153	785	1940	1540	315	146	4.2
9	17	110	91	110	90	188	989	1930	1720	261	138	9.1
10	17	106	84	105	85	207	1070	1890	1850	235	123	5.3
11	17	99	97	94	86	348	1100	1880	1870	223	113	5.6
12	17	113	97	96	92	504	1180	1830	1850	201	119	5.9
13	17	121	97	92	90	355	1390	1630	1740	191	99	5.3
14	19	121	98	82	90	260	1510	1410	1630	195	83	5.6
15	21	121	107	78	92	239	1670	1130	1550	203	64	6.2
16	20	108	103	82	95	229	1800	989	1500	186	48	7.1
17	26	108	122	82	98	191	1760	1080	1490	179	40	7.4
18	26	112	122	84	104	174	1820	1310	1470	176	34	7.4
19	24	108	116	86	106	177	1840	1430	1420	167	30	8.0
20	24	95	111	92	113	167	1690	1540	1400	150	30	8.4
21	26	90	100	102	118	167	1190	1500	1460	141	27	52
22	27	84	86	97	116	165	1000	1420	1530	154	24	123
23	29	90	82	96	110	158	950	1330	1610	152	22	134
24	30	95	84	98	104	145	875	1120	1590	183	14	106
25	28	97	92	100	104	154	860	1020	1580	163	12	72
26	51	81	96	96	108	191	1000	1100	1700	127	9.2	61
27	46	73	110	94	110	216	1110	1210	1660	114	7.7	61
28	36	77	110	90	116	189	1120	1360	1440	106	6.8	62
29	29	81	129	88	---	181	1300	1440	1390	117	5.6	59
30	24	84	140	84	---	187	1180	1510	1350	194	4.7	71
31	26	---	152	78	---	213	---	1430	---	244	4.7	---
TOTAL	732	2507	3082	2958	2636	6076	31615	43745	46430	10181	2993.7	920.1
MEAN	23.6	83.6	99.4	95.4	94.1	196	1054	1411	1548	328	96.6	30.7
MAX	51	121	152	140	118	504	1840	2010	1870	1310	316	134
MIN	15	26	78	78	69	119	209	794	1350	106	4.7	3.9
AC-FT	1450	4970	6110	5870	5230	12050	62710	86770	92090	20190	5940	1830

CAL YR 1984 TOTAL 87082 MEAN 238 MAX 1700 MIN 14 AC-FT 172700
WTR YR 1985 TOTAL 153875.8 MEAN 422 MAX 2010 MIN 3.9 AC-FT 305200

08251500 RIO GRANDE NEAR LOBATOS, CO

LOCATION.--Lat 37°04'42", long 105°45'22", in sec.22, T.33 N., R.11 E., Conejos County, Hydrologic Unit 13010002, on right bank at highway bridge, 6 mi north of Colorado-New Mexico State line, 7 mi downstream from Culebra Creek, 10 mi east of Lobatos, and 14 mi east of Antonito.

DRAINAGE AREA.--7,700 mi^2, approximately, includes 2,940 mi^2 in closed basin in northern part of San Luis Valley, Colo.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1899 to current year. Monthly discharge only for some periods, published in WSP 1312. Published as "at Cenicero" 1899-1901, and as "near Cenicero" 1902-4.

REVISED RECORDS.--WSP 1312: 1919 (monthly runoff). WSP 210: Drainage area. WDR CO-78-1: 1976.

GAGE.--Water Stage recorder. Datum of gage is 7,427.63 ft above National Geodetic Vertical Datum of 1929. Prior to 1910, nonrecording gages at same site and datum.

REMARKS.--Estimated daily discharges: Nov. 25 to Mar. 1, Mar. 3-5. Records good except for estimated daily discharges, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, ground-water withdrawals and diversion for irrigation, and return flow from irrigated areas.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--31 years (water years 1900-30), 846 ft^3/s; 612,900 acre-ft/yr, includes period of extensive development for irrigation: 55 years (water years 1931-85), 433 ft^3/s; 313,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 13,200 ft^3/s, June 8, 1905, gage height, 9.1 ft, from rating curve extended above 8,000 ft^3/s; no flow at times in 1950-51, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1828, that of June 8, 1905.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,240 ft^3/s at 2230 June 13, gage height, 6.42 ft; minimum daily, 40 ft^3/s, Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	92	160	310	410	295	485	664	2330	4400	2470	706	67
2	108	174	325	330	305	502	685	2700	4180	2190	601	65
3	142	216	355	330	275	450	713	2530	3890	1920	615	65
4	139	410	340	300	260	480	744	2770	3560	1500	664	60
5	164	484	355	295	245	510	889	3360	3500	1160	685	58
6	157	532	350	310	260	496	1110	3940	3600	1100	636	51
7	151	550	325	345	265	502	1250	4520	3760	1210	526	50
8	133	580	345	345	275	514	1460	4890	3850	907	430	46
9	128	622	380	330	295	580	1780	5190	4080	736	400	43
10	120	615	480	315	280	574	2050	5300	4520	650	365	40
11	118	587	440	385	275	699	2120	5350	5010	622	320	43
12	133	556	490	360	295	1020	2260	5500	5530	556	302	50
13	133	568	405	330	300	1110	2520	5520	6040	466	294	51
14	133	615	340	340	305	889	2710	5300	6080	430	266	56
15	142	608	355	335	320	832	2880	4690	5740	415	242	98
16	151	594	305	315	345	800	3160	3940	5410	400	220	115
17	167	580	290	310	355	760	3310	3140	5100	380	198	95
18	188	550	385	315	365	720	3420	2810	4830	390	178	115
19	164	568	430	320	395	720	3660	2940	4760	360	167	148
20	157	562	375	330	415	706	3770	3210	4690	330	145	130
21	154	526	325	350	420	678	3560	3370	4500	310	139	166
22	154	478	335	380	420	671	3340	3230	4360	315	130	380
23	154	450	300	375	395	650	3210	3020	4350	355	128	380
24	160	460	275	370	405	615	2940	2740	4300	435	115	345
25	167	450	265	370	415	587	2680	2460	4210	490	102	274
26	184	440	285	375	420	615	2530	2540	4080	440	95	216
27	223	285	340	370	440	728	2490	2730	4010	395	88	195
28	212	290	375	360	460	752	2540	3020	3840	335	80	238
29	195	330	400	350	---	664	2630	3420	3500	325	76	274
30	170	295	425	325	---	629	2700	3970	2850	365	73	254
31	160	---	460	310	---	594	---	4380	---	514	69	---
TOTAL	4753	14135	11165	10585	9500	20532	69775	114810	132530	22471	9055	4168
MEAN	153	471	360	341	339	662	2326	3704	4418	725	292	139
MAX	223	622	490	410	460	1110	3770	5520	6080	2470	706	380
MIN	92	160	265	295	245	450	664	2330	2850	310	69	40
AC-FT	9430	28040	22150	21000	18840	40730	138400	227700	262900	44570	17960	8270

CAL YR 1984 TOTAL 209272 MEAN 572 MAX 3310 MIN 82 AC-FT 415100
WTR YR 1985 TOTAL 423479 MEAN 1160 MAX 6080 MIN 40 AC-FT 840000

08251500 RIO GRANDE NEAR LOBATOS, CO--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1969 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1975 to September 1981.
WATER TEMPERATURES: October 1975 to September 1981.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1040 microsiemens Sept. 17, 18, 1977; minimum, 89 microsiemens May 9, 1979.
WATER TEMPERATURE. Maximum, 30.0°C July 17, 1977; minimum, 0.0°C on many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)
OCT 16...	10:00	150	380	8.3	2.0	3.5	7.6	K18	K14	110
DEC 17...	14:00	290	--	7.8	0.0	4.1	10.8	--	--	81
FEB 26...	13:00	430	210	8.2	2.0	6.4	11.1	<2	K5	82
APR 23...	10:00	3210	195	7.9	14.0	16	7.5	K12	100	72
JUN 26...	13:00	4060	199	7.8	20.0	9.0	5.9	K24	K12	74
AUG 27...	13:00	88	800	8.7	22.0	5.0	5.7	--	--	220

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
OCT 16...	34	6.5	30	1	4.3	112	51	9.2	<0.1	24
DEC 17...	25	4.5	12	0.6	2.6	74	22	4.4	0.3	28
FEB 26...	25	4.6	14	0.7	3.1	70	25	4.1	0.2	28
APR 23...	22	4.2	11	0.6	3.0	51	38	3.2	0.2	23
JUN 26...	22	4.5	16	0.8	3.4	55	34	4.2	0.2	19
AUG 27...	65	15	83	3	11	203	160	24	0.5	21

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)
OCT 16...	238	230	0.32	96	0.10	0.03	0.3	0.13	0.11	0.11
DEC 17...	128	140	0.17	100	0.25	0.03	0.3	0.10	0.08	0.07
FEB 26...	154	150	0.21	179	--	--	0.6	0.16	--	--
APR 23...	148	140	0.2	1280	<0.10	0.03	0.6	0.12	0.09	0.06
JUN 26...	160	140	0.22	1750	0.13	0.06	0.6	0.13	0.10	0.03
AUG 27...	519	470	0.71	123	0.12	0.06	1.4	0.23	0.10	0.10

K BASED ON NON-IDEAL COLONY COUNT.

08251500 RIO GRANDE NEAR LOBATOS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LITHIUM DISSOLVED (UG/L AS LI)
OCT 16...	20	2	30	<0	<1	2	<3	4	42	8
FEB 26...	140	1	31	2	4	20	<3	10	330	6
JUN 26...	90	<1	37	<0.5	1	<1	<3	5	190	5
AUG 27...	10	4	57	0.5	<1	<1	<3	6	110	16

DATE	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)
OCT 16...	2	6	<0.1	<10	<1	<1	<1	270	<6	11
FEB 26...	4	62	0.2	<10	4	<1	1	180	<6	45
JUN 26...	8	26	<0.1	<10	1	<1	<1	180	<6	19
AUG 27...	3	60	0.1	10	7	<1	<1	580	7	11

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DISSOLVED (UG/L AS U)
OCT 16...	10:00	<6.9	<0.4	3.6	0.5	4.2	0.5	0.04	1.5
JUN 26...	13:00	<2.4	<0.5	2.6	<0.6	3.0	<0.7	0.04	<0.4

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 16...	10:00	150	43	17	37
DEC 17...	14:00	290	21	16	--
FEB 26...	13:00	430	11	13	--
APR 23...	10:00	3210	57	494	53
JUN 26...	13:00	4060	13	143	83
AUG 27...	13:00	88	5	1.2	83

TRANSMOUNTAIN DIVERSIONS FROM COLORADO RIVER BASIN IN COLORADO

There are 24 tunnels or ditches, all of which are equipped with water-stage recorders and Parshall flumes or sharp-crested weirs. Records furnished by Colorado Division of Water Resources. The locations and diversions of 8 selected diversions are given in the following list.

09010000 Grand River ditch diverts water from tributaries of Colorado River to La Poudre Pass Creek (tributary to Cache la Poudre River) in NW¼ sec.21, T.6 N., R.75 W., in Platte River basin. Two collection ditches beginning at headgates located in sec.28, T.5 N., R.76 W., and sec.29, T.6 N., R.75 W., intercept all tributaries upstream on each side of the Colorado River and converge at La Poudre Pass.
REVISIONS (WATER YEARS).--WSP 1313: 1912-27.

09013000 Alva B. Adams tunnel diverts water from Grand Lake and Shadow Mountain Lake in NW¼ sec.9, T.3 N., R.75 W., in Colorado River basin, to Lake Estes (Big Thompson River) in sec.30, T.5 N., R.72 W., in Platte River basin. For daily discharge, see elsewhere in this report.

09021500 Berthoud Pass ditch diverts water from tributaries of Fraser River between headgate in sec.33, T.2 S., R.75 W., and Berthoud Pass, in Colorado River basin, to Hoop Creek (tributary to West Fork Clear Creek) in sec.10, T.3 S., R.75 W., in Platte River basin.

09042000 Hoosier Pass tunnel diverts water from tributaries of Blue River in Colorado River basin to Montgomery Reservoir (Middle Fork South Platte River) in sec.14, T.8 S., R.78 W., in Platte River basin; this water is again diverted to South Catamount Creek (tributary to Catamount Creek) in SE¼ sec.14, T.13 S., R.69 W., in the Arkansas River basin. Collection conduits extending from the right bank of Crystal Creek (tributary to Spruce Creek) in sec.14, T.7 S., R.78 W., right bank of Spruce Creek in sec.23, T.7 S., R.78 W., right bank of McCullough Gulch in sec.26, T.7 S., R.78 W., right bank of Monte Cristo Creek in SW¼NE¼ sec.2, T.8 S., R.78 W., left bank of Bemrose Creek in SW¼SW¼ sec.6, T.8 S., R.77 W., and intercepting intermediate tributaries, transport diversions to north portal of the tunnel.

09050590 Harold D. Roberts tunnel diverts water from Dillon Reservoir (Blue River) in sec.18, T.5 S., R.77 W., in Blue River basin, to North Fork South Platte River (tributary to South Platte, River) in SW¼SW¼ sec.4, T.7 S., R.74 W., in Platte River basin. Figures include a small amount of ground-water inflow between Dillon Reservoir and east portal of tunnel.

09063700 Homestake tunnel diverts water from Homestake Lake (Middle Fork Homestake Creek), in sec.17, T.8 S., R.81 W., in Eagle River basin, to Lake Fork in sec.9, T.9 S., R.81 W., in Arkansas River basin. Water is imported to Homestake Lake from tributaries of Homestake Creek by collection conduits that extend from right bank of French Creek in sec.28, T.7 S., R.81 W., and left bank of East Fork Homestake Creek in sec.9, T.8 S., R.81 W., and intercept intermediate tributaries.

09077160 Charles H. Bousted tunnel diverts water from the main stem and tributaries of Fryingpan River (tributary to Roaring Fork River), in Colorado River basin, to Lake Fork in sec.10, T.9 S., R.81 W., in Arkansas River basin. Water is transported to west portal of tunnel (at lat 39°14'44", long 106°31'47"), by a series of collection conduits extending between headgates on right bank of Sawyer Creek at lat 39°15'58", long 106°38'19" and right bank of Fryingpan River at lat 39°14'40", long 106°31'49", and intercepting intermediate tributaries.

09077500 Busk-Ivanhoe tunnel diverts water from Ivanhoe Lake (Ivanhoe Creek), tributary to Fryingpan River in sec.13, T.9 S., R.82 W., in Roaring Fork River basin, to Busk Creek (tributary to Lake Fork) in sec. 20, T.9 S., R.81 W., in Arkansas River basin.

DIVERSIONS, IN ACRE-FEET, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
(SOME PREVIOUSLY UNPUBLISHED DIVERSIONS TO THE ARKANSAS RIVER BASIN ARE INCLUDED IN THIS TABLE)

Diversion	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
TO PLATTE RIVER BASIN												
09010000	0	0	0	0	0	0	0	1,280	10,540	6,350	2,030	630
Water year 1985, 20,830												
09013000	15,070	14,970	18,100	16,170	20,490	26,480	29,310	33,830	31,910	31,870	26,950	20,020
Water year 1985, 285,200												
09021500	0	0	0	0	0	0	0	0	238	242	72	15
Water year 1985, 567												
09050590	0	0	0	0	0	0	0	0	0	0	0	299
Water year 1985, 299												
TO ARKANSAS RIVER BASIN												
09042000	1,040	0	0	0	0	0	0	798	2,200	1,140	989	1,240
Water year 1985, 7,400												
09063700	0	135	1,090	0	0	2,430	877	0	1,330	2,380	1,800	147
Water year 1985, 10,180												
09077160	0	0	0	0	0	0	0	3,170	39,030	32,170	12,300	771
Water year 1983, 87,440												
09077160	0	0	0	0	0	0	0	21,900	45,770	25,010	12,010	2,950
Water year 1984, 107,600												
09077500	258	0	0	0	0	0	0	113	3,380	4,200	1,230	202
Water year 1983, 9,390												

TRANSMOUNTAIN DIVERSIONS NO LONGER PUBLISHED

Following is a list of Transmountain Diversions no longer being published in this report. Diversions, in acre-feet, for these sites are available from the State of Colorado, Division of Water Resources.

TO PLATTE RIVER BASIN

09012000	Eureka ditch
09022500	Moffat Water tunnel
09046000	Boreas Pass ditch
09047300	Vidler tunnel

TO ARKANSAS RIVER BASIN

09061500	Columbine ditch
09062000	Ewing ditch
09062500	Wurtz ditch
09073000	Twin Lakes tunnel
09115000	larkspur ditch

TO RIO GRANDE BASIN

09118200	Tarbell ditch
09121000	Tabor ditch
09341000	Treasure Pass ditch
09347000	Don LaFont ditches 1&2
09348000	Williams Cr-Squaw Pass ditch
09351000	Pine River-Weminuche Pass ditch
09351500	Weminuche Pass ditch

As the number of streams on which streamflow information is likely to be desired far exceeds the number of streamflow-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than streamflow-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or flood-flow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in a table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a second table.

CREST-STAGE PARTIAL-RECORD STATIONS

The following table contains annual maximum discharge for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS DURING WATER YEAR 1985

Station number	Station name	Location	Total drainage area (mi^2)	Non contributing	Period of record	Annual maximum		
						Date	Gage height (feet)	Dis charge (ft^3/s)
		PLATTE RIVER BASIN						
--------	Lee Gulch at Littleton, CO	Lat 39°35'47", long 105°00756", in SW¼SW¼ sec.21, T.5 S., R.68W., Arapahoe County, on right bank 30 ft above Prince St. culvert, 0.6 mi upstream from mouth in Littleton.	a		1980-85	1985	12.87	94
06708500	Deer Creek near Littleton, CO	Lat 39°32'56", long 105°07'59", in NE¼NE¼ sec.8, T.6 S., R.69 W., Jefferson County, 70 ft upstream from county bridge over Deer Creek, 7.5 mi southwest of Littleton.	26.2	-	1942-46, 1978-85	1985	5.11	Not determined
06710350	Bear Creek near Evergreen, CO	Lat 39°38'11", long 105°20'51", in NW¼NW¼ sec.9, T.5 S., R.71 W., Jefferson County, 1.4 mi upstream from confluence with Evergreen Lake, 1.6 mi northwest of Evergreen.	96.6	-	1978-85	1985	6.51	177
06710400	Cub Creek at Evergreen, CO	Lat 39°37'50", long 105°19'16", in NW¼SE¼ sec.10, T.5 S., R.71 W., Jefferson County, 0.1 mi upstream from confluence with Bear Creek.	22.2	-	1978-85	1985	8.25	Not determined
06710600	Mt. Vernon Creek near Morrison, CO	Lat 39°40'49", long 105°11'50", in NW¼NW¼ sec.26, T.4 S., R.70 W., Jefferson County, 1.9 mi north of Morrison.	7.58	-	1978-85	1985	none	Not determined
06710990	Parmalee Gulch at mouth at Indian Hills, CO	Lat 39°36'57", long 105°13'54", in NW¼SE¼ sec.16, T.5 S., R.70 W., Jefferson County, 20 ft upstream from box type culvert beneath U.S. Highway 285.	5.80	-	1978-85	1985	8.91	14.5
06711000	Turkey Creek near Morrison, CO	Lat 39°37'22", long 105°11'13", in NE¼NE¼ sec.14, T.5 S., R.70 W., Jefferson County, 2.2 mi southwest of Morrison.	48.0	-	1942-53 1969 1978-85	1985	10.59	197
--------	Weaver Creek near Lakewood, CO	Lat39°38'13", long 105°07'47", in NE¼NE¼ sec.8, T.5 S., R.69 W., Jefferson County, 500 ft upstream from Simms St., and 700 ft south of West Quincy Ave.	a		1982-85	1985	13.93	Not determined
--------	Little Dry Creek above Englewood, CO	Lat39°38'56", long 104°58'40", in SW¼NW¼ sec.2, T.5 S., R.68 W., Arapahoe County, 40 ft above Clarkson St. bridge, and 800 ft south of Hampton Ave., in Cherry Hills Village.	a		1982-85	1985	12.64	537
06711570	Harvard Gulch at Colorado Blvd. at Denver, CO	Lat 39°40'08", long 104°56'32", in SE¼SE¼ sec.30, T.4 S., R67 W., Denver County, on left bank, 100 ft upstream from S. Jackson St., and 400 ft north of E. Yale Ave.	a		1979-85	1985	12.34	392

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS DURING WATER YEAR 1985--Continued

Station number	Station name	Location	Total drainage area (mi^2)	Non contributing	Period of record	Date	Annual maximum	
							Gage height (feet)	Dis charge (ft^3/s)
		PLATTE RIVER BASIN--Continued						
--------	Harvard Gulch below University Blvd. at Denver, CO	Lat 39°40'10", long 104°57'33", in SE¼SE¼ sec.26, T.4.S., R.68 W., Denver County, 200 ft downstream from University Blvd., and 600 ft north of East Yale Ave., in Denver.	a		1979-85	1985	13.01	543
06711575	Harvard Gulch at Harvard Park at Denver, CO	Lat 39°40'21", long 104°58'35", in NW¼SW¼ sec.26, T.4 S., R.68 W., Denver County, on left bank, 200 ft north of E. Harvard Ave. and 300 ft west of S. Ogden St., directly north of Porter Hospital.	a		1979-85	1985	12.38	81
06711600	Sanderson Gulch tributary at Lakewood, CO	Lat 39°41'19", long 105°04'54", in NE¼NW¼ sec.23, T.4 S., R.68 W., Jefferson County, 300 ft upstream from S. Wadsworth Blvd., 300 ft south of W. Florida Ave. in Lakewood.	.38	-	1969-85	1985	12.98	143
--------	Dry Gulch at Denver, CO	Lat 39°44'03", long 105°02'20", in SW¼NE¼ sec.6, T.4 S., R.68 W., Denver County, 800 ft upstream from confluence with Lakewood Gulch, north of West 10th Ave., at Perry St., in Denver.	a		1980-85	1985	11.36	102
--------	Lakewood Gulch at Denver, CO	Lat39°44'06", long 105°01'54", in SW¼NW¼ sec.5, T.4 S., R.68 W., Denver County, 2,000 ft downstream from confluence with Dry Gulch, near intersection of Knox Ct., and West 12th Ave., in Denver.	a		1980-85	1985	13.70	556
06713500	Cherry Creek at Denver, CO	Lat 39°44'58", long 105°00'08", in NE¼ sec.33, T.3S., R.68 W., Denver County, on right bank, on downstream side of Wazee St. bridge in Denver, 0.5 mi upstream from mouth.	409		b1942-69, b1980-83 1984-85	1985	6.40	1,840
06714310	Sand Creek tributary at Denver, CO	Lat 39°47'07", long 104°50'31", in SW¼SW¼ sec.13, T.3 S., R.67 W., Denver County, in median of Andrews Drive Parkway, 50 ft downstream from Troy St. in Denver.	.29	-	1971-85	1985	unknown	800
--------	Westerly Creek at Aurora, CO	Lat 39°44'43", long 104°52'48", in NW¼SW¼ sec.34, T.3 S., R.67 W., Adams County, 50 ft upstream from footbridge, 800 ft upstream from Montview Blvd., and 100 ft east of Boston St., in Aurora.	a		1982-85	1985	13.22	450
--------	Little Dry Creek at Westminster, CO	Lat 39°49'39", long 105°02'28", in SE¼NW¼ sec.5, T.3 S., R.68 W., Adams County, 30 ft upstream from culvert under 72nd Ave., and 1300 ft west of Lowell Blvd. in Westminster. (Discontinued Aug. 7, 1984).	a		1982-85	1985	11.35	not determined
06723000	Middle Fork St. Vrain Creek near Allens Park, CO	Lat 40°10'07", long 105°26'27", in SW¼NW¼ sec.3, T.2 N., R.72 W., Boulder County, 1.4 mi northeast from Raymond.	28.0	-	1925-30 1978-85	1985	7.15	470
06732500	Fall River at Estes Park, CO	Lat 40°22'40", long 105°31'56", in NW¼NW¼ sec.25, T.5 N., R.73 W., Larimer County, 100 ft upstream from State bridge 34 and 0.7 mi upstream from mouth. Destroyed by flood, 7-82.	39.5	-	1947-53 1978-85	1985	8.11	290
06736650	Cedar Creek at Cedar Cove, CO	Lat 40°25'08", long 105°15'53", NW¼NW¼ sec.8, T.5 N., R.70 W., Larimer County, 0.2 mi north of Cedar Cove and 4.1 mi southeast of Drake.	18.9	-	1978-85	1985	--	not determined

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS DURING WATER YEAR 1985--Continued

Station number	Station name	Location	Total drainage area (mi²)	Non contributing	Period of record	Date	Annual maximum Gage height (feet)	Annual maximum Discharge (ft³/s)
		ARKANSAS RIVER BASIN						
07091000	Chalk Creek near Nathrop, CO	Lat 38°44'01", long 106°09'34", in SE¼NW¼ sec.19, T.15 S., R.78 W., Chaffee County, 4 mi west of Nathrop.	97.0	-	1910, 1949-56, 1978-85	1985	3.31	1,020
07107500	St. Charles River Burnt Mill, CO	Lat 38°03'06", long 104°47'35", in NE¼NE¼ sec.17, T.23 S., R.66 W., Pueblo County, 5.9 mi downstream from North St. Charles River.	166	-	1923-33, 1978-85	1985	3.12	590

a Not determined.
b Operated as a continuous-record station these years.

Listed below are partial-record sites established to monitor seepage from Teller Reservoir on Fort Carson Military Reservation.

DISCHARGE MEASUREMENTS MADE AT PARTIAL-RECORD SITES DURING WATER YEAR 1985

Station no.	Stream	Tributary to	Location	Date	Discharge (ft^3/s)
			ARKANSAS RIVER BASIN		
3826261044943	Teller Reservoir Seepage No. 1 Near Stone City, Co.	Turkey Creek	Lat 38°26'26", long 104°49'43", in NW¼SW¼ sec.31, T.18 S., Pueblo County, at right downstream toe of Teller Dam	12-18-84	0.11
				1-28-85	0.06
				3-12-85	0.11
				8-21-85	0
07099235	Turkey Creek Near Stone City, Co.	Turkey Creek	Lat 38°26'27", long 104°49'31' in SE¼NW¼ sec.31, T.18 S., Pueblo County, 0.1 mi downstream from Teller Dam (formerly recording station)	12-18-84	1.69
				1-28-85	1.94
				3-12-84	1.40
				5-02-85	1.80
				8-21-85	1.31
3826281044940	Teller Reservoir Seepage No. 2 Near Stone City, Co.	Turkey Creek	Lat 38426'28", long 104°49'40", in NW¼SE¼ sec.36, T.18 S., Pueblo County, 500 ft downstream of right toe of Teller Dam.	12-04-84	0.11
				1-28-85	0.15
				3-12-85	0.22
				8-21-85	0.08

06614800 MICHIGAN RIVER NEAR CAMERON PASS, CO. (LAT 40 29 46N LONG 105 51 52W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
OCT 1984					APR 1985				
24...	12:40	1.3	47	3.0	25...	10:30	0.5	48	0.5
DEC					MAY				
04...	14:40	0.8	46	0.5	23...	12:00	2.5	44	1.0
JAN 1985					JUL				
29...	15:15	0.42	49	0.5	02...	12:15	8.0	42	8.5
FEB					AUG				
27...	13:20	0.38	49	0.5	07...	14:25	2.7	43	11.0
MAR					SEP				
27...	14:05	0.34	47	0.5	16...	16:15	1.2	48	8.0

06695000 S PLATTE R AB 11-MILE CANYON RE, NR HARTSEL, CO. (LAT 38 58 03N LONG 105 34 51

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
OCT 1984					MAY 1985				
01...	15:25	67	--	14.0	06...	12:55	274	--	7.0
24...	15:15	242	--	7.0	22...	13:35	259	--	12.0
NOV					JUN				
20...	15:15	51	--	5.0	03...	13:10	320	--	15.0
DEC					17...	12:45	477	--	17.0
07...	16:10	27	--	0.0	JUL				
17...	16:55	28	--	0.0	01...	14:55	202	--	16.0
FEB 1985					16...	13:35	265	--	19.5
14...	15:45	54	--	6.0	30...	13:20	193	--	18.0
MAR					AUG				
04...	16:30	31	--	4.0	12...	13:45	162	--	20.0
11...	15:55	31	--	7.5	26...	12:40	120	--	20.0
26...	13:10	54	--	3.0	SEP				
APR					12...	15:20	151	--	18.0
08...	13:20	36	--	4.0	23...	13:10	119	--	14.0
23...	14:25	123	--	8.0					

06696000 SOUTH PLATTE RIVER NEAR LAKE GEORGE, CO. (LAT 38 54 19N LONG 105 28 22W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
OCT 1984					MAY 1985				
01...	14:05	69	--	13.0	06...	11:15	212	--	7.0
24...	13:45	231	--	7.0	22...	11:55	265	--	12.0
NOV					JUN				
20...	14:05	80	--	2.0	03...	11:55	300	--	12.0
DEC					17...	10:10	493	--	16.0
07...	14:25	32	--	2.0	JUL				
17...	15:40	27	--	1.0	01...	12:30	281	--	16.0
FEB 1985					16...	12:05	274	--	17.0
14...	14:00	56	--	4.0	30...	11:45	335	--	18.0
MAR					AUG				
04...	14:50	55	--	3.5	12...	12:00	131	--	17.0
11...	14:30	42	--	4.0	26...	11:00	118	--	17.0
26...	11:55	71	--	3.0	SEP				
APR					12...	17:00	165	--	15.0
08...	11:50	62	--	3.0	23...	11:35	89	--	14.0
23...	11:45	132	--	5.0					

06696980 TARRYALL CREEK AT UPPER STATION, NEAR COMO, CO. (LAT 39 20 22N LONG 105 54 37

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
OCT 1984					APR 1985				
05...	11:10	21	80	8.0	02...	15:40	12	50	1.0
05...	11:10	21	80	8.0	16...	12:50	13	85	4.0
NOV					MAY				
06...	17:15	14	<50	1.0	15...	14:40	43	80	5.0
DEC					JUL				
11...	17:00	10	80	1.5	16...	16:25	30	<50	10.0
JAN 1985					AUG				
23...	16:25	4.5	<50	0.5	20...	16:00	20	85	8.0
FEB									
19...	14:00	4.3	<50	0.0					

06697450 MICHIGAN CREEK ABOVE JEFFERSON, CO. (LAT 39 21 32N LONG 105 50 27W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
OCT 1984					APR 1985				
05...	14:45	18	<50	7.0	02...	13:50	7.0	60	1.0
NOV					MAY				
06...	14:20	16	60	1.0	16...	16:10	34	95	4.0
DEC					JUL				
11...	13:45	6.5	65	1.0	16...	11:45	49	65	6.0
JAN 1985					AUG				
23...	14:45	4.1	<50	0.0	20...	11:45	11	110	7.5

06698000 JEFFERSON CREEK NEAR JEFFERSON, CO. (LAT 39 23 24N LONG 105 48 38W)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)
OCT 1984				
05...	16:15	21	<50	7.0
NOV				
06...	12:15	9.7	<50	1.0
DEC				
11...	11:30	1.9	<50	1.0
JAN 1985				
23...	10:15	1.2	<50	1.0
FEB				
19...	11:05	5.3	<50	0.0
APR 1985				
01...	11:50	3.3	<50	1.0
16...	09:20	6.3	65	4.0
MAY				
15...	11:25	3.9	110	4.0
JUL				
16...	10:20	33	<50	11.0
AUG				
20...	10:10	27	<50	7.5

06699005 TARRYALL CREEK BELOW ROCK C NEAR JEFFERSON, CO. (LAT 39 17 13N LONG 105 41 43

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)
OCT 1984				
05...	13:10	89	80	7.0
NOV				
06...	15:40	38	80	2.0
DEC				
11...	15:20	21	85	1.0
JAN 1985				
23...	12:50	5.4	140	1.0
MAR 1985				
19...	12:15	29	140	1.0
MAY				
16...	13:30	100	280	4.0
JUL				
16...	14:05	89	80	12.0
AUG				
20...	13:50	47	160	7.0

06701500 SOUTH PLATTE RIVER BELOW CHEESMAN LAKE, CO. (LAT 39 12 33N LONG 105 16 02W)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)
OCT 1984				
01...	10:25	252	--	12.0
11...	09:45	339	--	12.0
24...	10:20	450	--	4.5
NOV				
20...	10:10	190	--	6.0
DEC				
07...	10:50	65	--	5.0
17...	12:20	118	--	4.0
FEB 1985				
14...	10:30	80	--	3.0
MAR				
04...	10:30	55	--	3.0
11...	10:15	108	--	3.5
28...	11:25	152	--	3.0
APR 1985				
10...	12:35	285	--	6.0
25...	09:55	351	--	8.0
MAY				
10...	14:05	738	--	12.5
24...	12:40	781	--	9.0
JUN				
05...	13:45	729	--	13.0
19...	12:30	831	--	18.0
JUL				
03...	12:00	417	--	18.0
AUG				
01...	12:50	539	--	17.0
14...	14:15	281	--	19.0
SEP				
11...	13:30	299	--	13.0

06706000 NF SOUTH PLATTE R BELOW GENEVA C, AT GRANT, CO. (LAT 39 27 26N LONG 105 39 29

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)
OCT 1984				
02...	11:15	85	--	9.0
25...	10:05	41	--	0.0
NOV				
21...	10:40	30	--	0.0
DEC				
06...	14:10	34	--	0.0
18...	10:30	27	--	0.0
FEB 1985				
15...	11:15	23	--	0.0
MAR				
05...	11:10	25	--	0.0
12...	14:45	22	--	1.0
27...	12:00	27	--	2.0
APR				
09...	10:15	35	--	3.0
24...	11:55	44	--	7.0
MAY 1985				
07...	12:20	136	--	5.0
23...	12:30	149	--	8.0
JUN				
04...	14:00	224	--	4.0
18...	12:20	285	--	10.0
JUL				
02...	12:30	141	--	10.0
17...	13:10	115	--	13.0
31...	12:35	99	--	11.0
AUG				
13...	13:25	73	--	11.0
27...	11:10	52	--	11.0
SEP				
12...	12:05	50	--	8.5
24...	13:00	31	--	7.0

06709500 PLUM CREEK NEAR LOUVIERS, CO. (LAT 39 29 04N LONG 105 00 07W)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)
OCT 1984				
01...	15:10	30	330	17.5
19...	15:45	78	300	9.0
NOV				
16...	14:00	71	275	3.5
DEC				
10...	13:50	66	280	4.0
27...	11:00	51	310	6.0
JAN 1985				
07...	15:00	47	325	1.0
FEB				
19...	12:20	31	335	1.0
MAR				
06...	11:55	43	360	8.0
APR				
02...	15:00	62	295	18.0
22...	11:40	164	180	10.5
MAY 1985				
06...	13:30	267	160	16.0
16...	10:10	166	180	12.0
JUN				
03...	15:40	100	210	23.0
20...	16:00	32	270	29.0
JUL				
05...	16:10	13	280	28.0
18...	11:30	15	390	25.0
AUG				
15...	11:25	30	400	19.0
29...	14:45	11	300	22.0
SEP				
12...	10:10	64	300	13.0

06709530 PLUM CREEK AT TITAN RD NR LOUVIERS, CO (LAT 39 30 27N LONG 105 01 23W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
APR 1984					JAN 1985				
13...	11:05	301	140	11.0	25...	15:30	24	380	0.5
30...	10:50	408	185	6.0	FEB				
MAY					19...	14:25	34	340	1.0
09...	14:00	460	180	15.0	MAR				
30...	11:30	217	195	20.0	06...	13:35	39	360	--
JUN					APR				
13...	10:40	107	250	24.0	22...	13:35	169	200	12.5
27...	18:00	63	270	25.5	MAY				
JUL					06...	15:10	275	160	15.5
10...	14:50	50	305	28.0	16...	11:50	165	195	14.0
27...	14:30	52	300	28.5	JUN				
AUG					20...	17:50	30	275	26.0
09...	13:25	35	310	26.5	JUL				
SEP					18...	11:00	19	380	25.0
19...	13:10	30	330	23.5	AUG				
OCT					15...	10:40	31	320	19.0
19...	14:15	99	300	8.0	SEP				
NOV					11...	14:40	17	360	19.0
16...	12:10	71	275	2.5					
DEC									
10...	15:30	66	280	4.5					

06710385 BEAR CREEK ABOVE EVERGREEN (LAT 39 37 58N LONG 105 19 59W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
OCT 1984					MAY 1985				
01...	10:50	63	72	3.5	03...	12:00	127	88	7.5
NOV					JUN				
15...	11:40	27	98	0.5	03...	11:45	99	64	9.5
DEC					JUL				
27...	14:30	27	80	0.5	01...	12:20	67	57	12.5
JAN 1985					AUG				
25...	10:40	16	88	0.5	01...	13:45	128	52	15.0
MAR					SEP				
08...	15:35	16	108	0.5	04...	12:00	53	68	13.0
APR									
11...	12:20	28	82	7.0					

06710500 BEAR CREEK AT MORRISON, CO. (LAT 39 39 11N LONG 105 11 43W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
OCT 1984					APR 1985				
10...	11:15	113	--	8.0	08...	14:40	38	--	7.5
23...	09:10	103	--	1.0	22...	14:35	47	--	6.5
NOV					MAY				
05...	08:00	103	--	1.5	08...	13:40	163	--	12.5
21...	09:25	51	--	0.0	21...	13:25	149	--	9.0
DEC					JUN				
05...	15:20	30	--	0.0	06...	16:00	125	--	17.0
17...	14:35	32	--	0.0	16...	12:55	56	--	19.0
JAN 1985					20...	13:55	87	--	18.0
16...	14:00	25	--	0.0	JUL				
30...	15:00	16	--	0.0	02...	13:20	68	--	17.0
FEB					30...	13:05	94	--	16.0
14...	09:40	17	--	0.0	AUG				
25...	13:40	21	--	2.5	13...	12:20	63	--	15.0
MAR					28...	15:00	37	--	19.0
12...	15:30	30	--	4.5	SEP				
27...	15:10	27	--	6.5	10...	15:20	33	--	16.5
					27...	14:20	31	--	11.0

06711500 BEAR CREEK AT MOUTH, AT SHERIDAN, CO. (LAT 39 39 08N LONG 105 01 57W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
OCT 1984					APR 1985				
10...	13:10	148	--	12.5	08...	17:15	48	--	12.0
23...	13:15	154	--	10.0	22...	17:00	63	--	12.0
NOV					MAY				
05...	15:00	156	--	7.0	08...	15:40	247	--	15.0
21...	10:35	92	--	2.5	21...	15:25	189	--	11.5
DEC					JUN				
06...	16:10	49	--	4.0	06...	18:00	132	--	19.0
17...	13:20	55	--	2.0	20...	16:10	86	--	23.0
JAN 1985					JUL				
17...	16:15	38	--	4.5	02...	15:55	19	--	24.0
30...	16:45	33	--	0.0	16...	16:10	35	--	26.5
FEB					30...	15:15	105	--	20.5
14...	12:20	11	--	0.0	AUG				
25...	16:20	38	--	7.0	13...	14:30	58	--	23.0
MAR					28...	17:55	29	--	23.5
12...	17:15	60	--	7.5	SEP				
27...	17:15	38	--	10.5	10...	17:25	17	--	20.5
					27...	18:20	22	--	14.5

06711565 SOUTH PLATTE RIVER AT ENGLEWOOD, CO. (LAT 39 39 54N LONG 105 00 13W)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)
DEC 1984				
19...	12:20	119	620	3.0
JAN 1985				
14...	12:10	419	420	--
FEB				
11...	12:15	197	540	3.0
MAR				
06...	10:55	170	520	5.0
APR 1985				
02...	10:25	109	620	9.5
05...	10:55	389	450	8.5
MAY				
02...	10:40	2330	380	12.0
JUL				
02...	12:05	413	520	19.5
AUG				
05...	11:30	1200	460	20.0

06712000 CHERRY CREEK NEAR FRANKTOWN, CO. (LAT 39 21 21N LONG 104 45 46W)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)
OCT 1984				
02...	11:50	16	240	12.5
26...	13:10	35	280	4.0
NOV				
13...	14:00	32	280	7.0
30...	13:15	18	280	0.5
DEC				
10...	11:20	27	--	1.0
26...	14:10	20	260	3.0
JAN 1985				
24...	11:15	17	300	0.5
FEB				
14...	15:00	15	240	0.5
MAR				
07...	15:05	48	210	5.0
APR				
04...	15:00	43	260	7.0
23...	15:10	22	240	15.5
MAY 1985				
08...	14:40	29	260	20.5
17...	13:20	33	--	14.0
JUN				
05...	14:00	18	260	19.5
20...	13:10	10	260	22.0
JUL				
05...	13:00	6.3	230	23.5
18...	14:40	7.3	225	22.0
31...	12:50	15	380	21.0
AUG				
14...	13:00	11	180	17.0
29...	12:15	5.3	280	20.0
SEP				
12...	14:10	12	380	18.0

06713000 CHERRY CREEK BELOW CHERRY CREEK LAKE, CO. (LAT 39 39 12N LONG 104 51 41W)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)
OCT 1984				
30...	11:20	243	490	6.5
DEC				
26...	10:30	84	--	4.5
MAY 1985				
17...	11:10	56	530	13.0
JUN				
05...	11:00	294	520	17.0

06713300 CHERRY CREEK AT GLENDALE, CO (LAT 39 42 22N LONG 104 56 15W)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)
JAN 1985				
17...	14:30	11	--	8.0
FEB				
01...	14:30	8.5	1220	0.0
14...	11:15	6.0	1300	0.5
MAR				
14...	11:05	91	560	6.5
APR				
04...	11:25	11	975	11.0
23...	10:23	12	900	14.0
MAY 1985				
07...	09:30	12	925	14.0
JUN				
04...	12:10	288	485	16.5
20...	09:55	13	980	18.0
AUG				
08...	10:45	15	900	20.0
SEP				
10...	13:45	13	1200	20.0

06714000 SOUTH PLATTE RIVER AT DENVER, CO. (LAT 39 45 35N LONG 105 00 10W)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)
OCT 1984				
03...	14:30	420	--	15.0
30...	14:20	1360	--	6.0
DEC				
11...	10:35	228	--	4.5
FEB 1985				
25...	10:05	311	--	4.0
MAR				
13...	07:55	324	--	5.5
25...	10:40	318	--	9.0
APR				
08...	09:30	505	--	7.0
23...	13:55	374	--	8.0
MAY				
07...	10:20	2250	--	13.0
20...	14:55	1810	--	15.0
JUN 1985				
04...	10:05	1630	--	16.0
17...	16:50	1020	--	20.0
JUL				
01...	15:05	517	--	20.0
15...	13:50	1030	--	20.0
29...	14:20	985	--	21.0
AUG				
12...	08:30	424	--	17.0
26...	09:10	354	--	18.0
SEP				
10...	10:00	149	--	17.0
23...	09:05	210	--	11.0

06714215 SOUTH PLATTE R AT 64TH ST. AT COMMERCE CITY, CO. (LAT 39 48 44N LONG 104 57 28

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)
NOV 1984				
21...	12:45	819	445	5.0
DEC				
19...	10:25	65	730	13.5
JAN 1985				
14...	10:00	514	510	3.0
FEB				
11...	10:15	331	720	1.5
MAR				
05...	14:40	244	770	8.0
JUN 1985				
03...	10:35	884	420	5.0
JUL				
02...	09:00	329	500	17.0
AUG				
03...	11:40	402	440	20.0
SEP				
03...	10:40	55	850	20.0

06716500 CLEAR CREEK NEAR LAWSON, CO. (LAT 39 45 57N LONG 105 37 32W)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)
OCT 1984				
01...	09:30	127	--	4.5
15...	09:45	121	--	3.0
30...	09:15	109	--	1.0
NOV				
13...	09:10	86	--	0.5
DEC				
05...	13:25	53	--	0.0
20...	10:45	48	--	0.0
JAN 1985				
16...	09:50	35	--	0.0
30...	11:10	25	--	0.0
FEB				
11...	13:30	68	--	0.0
25...	10:10	28	--	0.5
MAR				
12...	12:15	32	--	3.0
27...	12:00	31	--	2.5
APR 1985				
08...	10:30	37	--	2.5
22...	11:55	55	0	4.5
MAY				
08...	10:40	222	--	7.5
21...	09:25	203	--	6.0
JUN				
06...	11:20	498	--	9.0
20...	09:50	591	--	6.5
JUL				
03...	16:15	348	--	13.0
17...	14:25	264	--	13.0
AUG				
01...	13:20	215	--	12.0
14...	13:35	127	--	13.5
28...	11:50	96	--	13.0
SEP				
10...	10:25	69	--	9.0
27...	11:55	67	--	5.0

06720500 SOUTH PLATTE RIVER AT HENDERSON, CO. (LAT 39 55 19N LONG 104 52 00W)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)
OCT 1984				
05...	14:40	3760	--	14.0
30...	11:10	1700	--	7.0
DEC				
11...	12:30	636	--	8.5
24...	09:25	319	--	6.0
FEB 1985				
25...	11:10	347	--	10.0
MAR				
13...	09:50	532	--	9.0
25...	11:30	279	--	14.0
APR				
08...	11:10	418	--	12.5
23...	12:20	298	--	14.0
MAY 1985				
06...	13:20	2260	--	14.0
20...	07:55	1990	--	13.0
JUN				
03...	09:15	1130	--	16.0
17...	08:30	1010	--	17.0
JUL				
01...	08:25	367	--	18.0
16...	11:20	1020	--	21.0
29...	09:50	816	--	19.0
AUG				
12...	10:00	460	--	19.0
26...	10:45	338	--	21.0
SEP				
10...	11:00	368	--	19.0
23...	10:50	410	--	13.0

06725500 MIDDLE BOULDER CREEK AT NEDERLAND, CO. (LAT 39 57 42N LONG 105 30 14W)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)
OCT 1984				
01...	16:00	35	--	9.0
15...	14:15	39	--	0.5
30...	14:15	26	--	4.0
NOV				
13...	13:45	17	--	3.0
27...	13:20	17	--	0.0
DEC				
13...	11:40	11	--	0.0
JAN 1985				
08...	13:10	6.7	--	0.0
FEB				
06...	13:05	5.3	--	0.0
MAR				
18...	13:00	7.2	--	4.0
APR				
02...	12:20	8.2	--	5.0
15...	12:10	38	--	7.0
29...	12:35	47	--	4.0
MAY 1985				
13...	14:00	101	--	3.0
28...	14:15	172	--	4.0
JUN				
10...	13:15	293	--	6.0
JUL				
08...	12:00	116	0	12.0
22...	12:45	104	--	10.0
AUG				
06...	12:55	62	--	13.0
23...	12:30	33	--	13.0
SEP				
03...	12:25	33	--	13.0
16...	12:50	25	--	11.0

06726900 BUMMERS GULCH NEAR EL VADO, CO. (LAT 40 00 42N LONG 105 20 53W)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)
OCT 1984				
18...	13:35	0.54	360	5.0
DEC				
07...	13:50	0.34	420	3.5
FEB 1985				
14...	13:30	0.24	--	1.0
MAR 1985				
19...	12:40	0.52	365	7.0
APR				
29...	11:10	0.62	400	7.0
JUL				
10...	12:05	0.16	--	21.0

06727000 BOULDER CREEK NEAR ORODELL, CO. (LAT 40 00 23N LONG 105 19 49W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
OCT 1984					MAY 1985				
01...	17:30	47	--	10.0	13...	15:45	76	--	7.0
15...	15:40	49	--	6.0	28...	15:10	80	0	14.0
30...	15:40	42	--	3.0	JUN				
NOV					10...	15:20	366	--	14.0
13...	15:25	22	--	4.0	28...	15:15	170	--	16.0
27...	11:45	21	--	2.5	JUL				
DEC					08...	14:10	131	--	18.0
13...	10:20	3.9	--	0.0	22...	15:10	163	--	16.0
JAN 1985					AUG				
08...	15:10	24	--	2.0	06...	15:20	76	--	18.0
FEB					23...	14:45	13	--	20.0
06...	11:30	3.8	--	0.0	SEP				
MAR					03...	15:00	50	--	16.0
18...	15:20	5.6	--	5.0	16...	14:40	34	--	11.0
APR									
02...	13:50	12	--	9.0					
15...	10:30	21	--	8.5					
29...	14:15	95	--	8.0					

06727500 FOURMILE CREEK AT ORODELL, CO. (LAT 40 01 06N LONG 105 19 33W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
OCT 1984					MAR 1985				
18...	14:40	4.9	370	5.0	19...	14:10	3.0	350	7.0
DEC					APR				
07...	12:40	2.0	340	0.0	29...	11:45	7.7	180	6.0
JAN 1985					AUG				
10...	15:30	2.2	--	0.0	12...	12:45	0.6	--	15.0
FEB					SEP				
14...	13:50	1.8	--	3.0	17...	13:15	0.11	265	15.0

06729500 SOUTH BOULDER CREEK NEAR ELDORADO SPRINGS, CO. (LAT 39 55 52N LONG 105 17 43W

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
OCT 1984					MAY 1985				
02...	10:15	26	--	11.0	14...	13:20	215	--	8.0
17...	17:00	66	--	9.0	29...	12:05	209	--	11.0
31...	08:40	30	--	5.0	JUN				
NOV					11...	14:20	220	--	11.0
20...	12:20	23	--	3.5	25...	14:40	156	--	11.0
29...	11:15	16	--	3.0	JUL				
DEC					09...	14:20	106	--	12.0
13...	12:35	16	--	0.0	23...	12:10	115	--	13.0
26...	11:10	13	--	0.0	AUG				
JAN 1985					07...	13:35	44	--	15.0
10...	10:15	12	--	0.0	22...	13:50	28	--	15.0
FEB					SEP				
08...	12:30	16	--	1.0	04...	08:05	19	--	12.0
MAR					17...	11:20	30	--	14.0
19...	12:30	29	--	6.0					
APR									
03...	11:45	28	--	8.0					
16...	11:35	55	--	7.0					
30...	15:50	89	--	10.0					

06746095 JOE WRIGHT CREEK ABOVE JOE WRIGHT RESERVOIR, CO. (LAT 40 32 24N LONG 105 52 56

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
OCT 1984					MAY 1985				
24...	15:00	2.0	70	0.0	23...	10:20	9.8	52	0.5
DEC					JUL				
05...	11:00	0.95	57	0.0	02...	14:35	11	40	11.5
JAN 1985					AUG				
30...	10:00	0.62	65	0.0	07...	12:35	2.4	53	10.5
FEB					SEP				
28...	10:15	0.53	64	0.0	11...	13:10	0.83	62	10.5
MAR									
27...	17:10	0.52	54	0.0					

06746110 JOE WRIGHT CREEK BELOW JOE WRIGHT RESERVOIR, CO. (LAT 40 33 43N LONG 105 52 09

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
OCT 1984					APR 1985				
24...	16:55	4.7	40	3.0	24...	15:20	0.53	50	0.5
DEC					MAY				
04...	13:10	0.76	39	0.0	23...	13:50	3.9	36	1.0
JAN 1985					JUL				
30...	11:30	0.42	39	0.5	02...	15:50	21	40	6.5
FEB					AUG				
28...	11:40	0.3	40	0.5	07...	10:35	5.3	50	7.5
MAR					SEP				
28...	10:50	0.28	45	0.5	11...	11:00	39	44	7.5

SUPPLEMENTAL WATER-QUALITY DATA FOR GAGING STATIONS

06758500 SOUTH PLATTE RIVER NEAR WELDONA, CO. (LAT 40 19 19N LONG 103 55 17W)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)
OCT 1984 17...	11:40	3000	1040	7.5	APR 1985 23...	11:00	853	1250	11.5
NOV 13...	12:30	2420	922	7.5	MAY 29...	11:15	1790	800	21.0
DEC 11...	12:30	1100	1200	4.0	JUN 13...	12:00	1590	680	20.0
JAN 1985 24...	09:00	--	1270	0.0	JUL 17...	14:15	804	1330	27.5
FEB 25...	11:00	629	1330	4.5	AUG 22...	11:15	556	1970	21.5
MAR 25...	14:30	184	1800	17.0	SEP 25...	14:15	764	1670	14.0

06759100 BIJOU CREEK NEAR FT. MORGAN, CO. (LAT 40 16 58N LONG 103 52 30W)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)
OCT 1984 17...	11:10	15	1520	11.0	APR 1985 23...	09:00	12	1730	14.0
NOV 13...	11:40	14	1400	11.0	MAY 29...	13:25	15	1500	24.0
DEC 11...	14:30	9.7	1480	7.5	JUN 13...	09:50	17	1400	17.5
JAN 1985 24...	10:50	27	1350	3.5	JUL 17...	16:10	22	1400	26.5
FEB 25...	10:05	9.7	1570	11.0	AUG 22...	09:25	19	--	17.0
MAR 25...	16:15	11	1700	15.5	SEP 26...	09:10	88	1450	9.5

06826500 SOUTH FORK REPUBLICAN RIVER NEAR HALE, CO. (LAT 39 37 26N LONG 102 09 47W)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)
OCT 1984 24...	10:50	5.6	560	8.0	APR 1985 10...	15:00	6.9	530	19.5
NOV 27...	10:35	5.5	560	3.0	MAY 09...	14:00	5.7	540	19.5
DEC 11...	12:05	6.0	550	8.0	JUN 19...	11:55	5.1	515	16.0
JAN 1985 16...	13:40	6.7	510	6.5	JUL 17...	12:25	5.2	575	22.0
FEB 20...	11:45	27	570	7.0	AUG 19...	12:15	6.0	590	17.0
MAR 19...	12:40	6.2	530	12.0	SEP 19...	12:40	5.5	500	18.0

07089000 COTTONWOOD C BL HOT SPRINGS, NR BUENA VISTA, CO. (LAT 38 48 46N LONG 106 13 18

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)
DEC 1984 06...	09:25	28	125	1.0	AUG 1985 01...	16:00	80	99	16.0
FEB 1985 15...	14:10	24	71	4.5	29...	12:50	47	135	16.0
MAY 01...	12:00	41	121	16.0					

07093700 ARKANSAS RIVER NEAR WELLSVILLE, CO. (LAT 38 30 10N LONG 105 56 21W)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)
APR 1985 17...	13:45	642	--	12.0	AUG 1985 19...	09:45	645	--	12.0
MAY 01...	13:50	999	--	11.0	SEP 03...	10:45	475	--	13.0
14...	14:00	1100	--	10.0	16...	09:40	445	--	11.0
JUN 04...	09:40	2000	--	9.0	30...	11:45	515	--	6.0

07094500 ARKANSAS RIVER AT PARKDALE, CO. (LAT 38 29 14N LONG 105 22 23W)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)
NOV 1984 05...	13:15	699	420	7.0	JUN 1985 28...	13:25	2380	180	19.0
DEC 14...	11:30	406	280	0.0	JUL 31...	13:15	1570	240	20.0
JAN 1985 07...	13:20	405	240	0.0	AUG 23...	13:00	647	292	23.0
FEB 25...	13:00	468	360	3.0					

07094900 MIDDLE TAYLOR CREEK NEAR WESTCLIFFE, CO. (LAT 38 06 30N LONG 105 36 03W)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)
NOV 1984 06...	10:30	1.2	180	1.0	JUN 1985 07...	12:50	25	110	14.0
FEB 1985 22...	11:35	0.53	160	0.0	JUL 26...	14:30	5.0	67	17.0
APR 30...	13:05	2.6	210	16.0	AUG 22...	11:30	2.1	210	15.0

07096500 FOURMILE CREEK NEAR CANON CITY, CO. (LAT 38 26 11N LONG 105 11 27W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
OCT 1984 25...	10:45	107	600	6.0	JUL 1985 23...	12:20	304	478	20.0
MAR 1985 28...	15:45	56	720	8.0	AUG 05...	13:45	164	450	22.0
MAY 23...	13:35	317	420	17.0	16...	11:45	98	400	19.0

07099215 TURKEY CREEK NEAR FOUNTAIN COLO (LAT 38 36 42N LONG 104 53 39W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
OCT 1984 10...	14:15	13	164	10.0	MAY 1985 14...	10:55	12	132	5.5
NOV 06...	12:10	14	165	6.5	22...	15:35	36	129	7.0
DEC 10...	15:50	2.5	223	3.0	JUN 06...	11:00	6.7	200	12.5
JAN 1985 07...	11:50	1.2	252	1.0	JUL 12...	10:50	0.47	380	20.5
FEB 12...	14:45	0.92	255	1.0	AUG 14...	12:05	0.73	330	14.0
MAR 14...	11:50	0.33	290	10.0	SEP 16...	10:50	0.36	310	17.0
APR 15...	09:40	7.5	141	7.5					

07099220 LITTLE TURKEY CREEK NEAR FOUNTAIN, CO. (LAT 38 37 38N LONG 104 51 57W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
OCT 1984 11...	13:15	10	160	12.0	APR 1985 15...	11:30	5.4	175	11.0
NOV 06...	13:25	12	165	8.0	MAY 14...	12:45	12	148	9.0
DEC 11...	10:35	0.32	273	6.5	22...	16:35	37	155	9.0
JAN 1985 07...	12:25	0.12	273	6.0	JUN 06...	12:00	5.1	192	15.0
FEB 12...	16:05	0.64	165	0.0	AUG 14...	13:15	0.02	305	17.5
MAR 20...	11:25	0.07	292	10.0					

07099230 TURKEY CREEK AB TELLER RES NEAR STONE CITY, CO. (LAT 38 27 37N LONG 104 49 19

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
DEC 1984 18...	11:00	4.9	640	3.5	JUN 1985 12...	13:45	12	449	24.0
JAN 1985 25...	14:30	3.0	730	8.0	AUG 21...	15:18	1.4	610	25.0
MAY 02...	14:00	33	226	22.0					

07103800 WEST MONUMENT CREEK AT AIR FORCE ACADEMY, CO. (LAT 38 58 14N LONG 104 54 08W

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
OCT 1984 23...	13:30	4.4	75	3.0	APR 1985 08...	11:50	1.9	100	3.0
NOV 19...	16:00	3.1	70	1.5	MAY 06...	13:45	18	65	6.5
DEC 04...	11:20	1.8	75	1.0	JUN 04...	10:50	5.0	70	7.5
17...	11:45	1.4	80	0.5	JUL 02...	13:25	1.2	80	13.0
JAN 1985 11...	11:25	0.84	90	0.5	31...	11:20	1.3	85	13.0
FEB 14...	12:35	0.56	95	1.0	AUG 27...	11:45	0.56	110	14.0
MAR 11...	14:55	0.58	70	2.0					

07103950 KETTLE CREEK NEAR BLACK FOREST, CO. (LAT 39 00 14N LONG 104 44 21W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
OCT 1984 24...	13:00	1.8	140	7.0	APR 1985 08...	15:50	2.4	210	9.0
NOV 19...	14:30	2.7	160	3.0	MAY 07...	10:10	6.6	180	11.0
DEC 17...	13:30	2.3	180	0.5	JUN 04...	12:50	3.9	170	13.0
JAN 1985 11...	12:55	1.5	190	0.5	JUL 02...	11:35	2.0	170	19.0
FEB 13...	11:30	1.1	190	1.0	30...	12:40	5.6	170	20.0
MAR 11...	13:30	1.7	180	5.5	AUG 07...	12:55	3.3	175	23.5
					26...	16:10	1.4	215	22.0

07105900 JIMMY CAMP CREEK AT FOUNTAIN, CO. (LAT 38 41 04N LONG 104 41 17W)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)
OCT 1984					APR 1985				
25...	11:25	3.0	2800	12.0	19...	11:20	1.4	3000	14.0
NOV					MAY				
21...	14:20	2.2	2800	10.0	07...	15:20	1.7	2600	23.0
DEC					JUN				
19...	10:40	1.9	2800	6.0	06...	10:25	1.5	2400	18.0
JAN 1985					JUL				
15...	14:05	1.7	2200	5.0	09...	14:50	0.87	2250	28.0
FEB					29...	10:50	39	600	16.5
11...	12:05	1.7	3000	8.0	AUG				
MAR					02...	13:45	4.6	1900	26.5
13...	10:15	1.7	3200	8.0	29...	16:00	2.2	2500	27.0

07105920 L FOUNTAIN C AB KEATON RE, NR FORT CARSON, CO. (LAT 38 40 55N LONG 104 51 30W

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)
OCT 1984					MAY 1985				
10...	11:50	30	102	7.5	13...	14:00	30	60	2.5
NOV					22...	13:50	66	77	5.0
05...	15:45	25	98	4.0	JUN				
DEC					13...	10:20	7.5	108	11.0
10...	14:30	4.0	114	1.0	JUL				
JAN 1985					16...	10:25	2.2	130	14.5
10...	11:30	2.4	130	0.0	AUG				
FEB					14...	15:00	6.4	90	13.5
12...	13:00	1.5	129	0.0	SEP				
MAR					16...	15:31	3.8	102	13.5
18...	14:10	2.9	118	4.5					
APR									
16...	13:35	17	79	7.0					

07105924 WOMACK DITCH NEAR FORT CARSON, CO. (LAT 38 40 52N LONG 104 51 20W)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)
OCT 1984					APR 1985				
11...	11:10	1.1	102	7.0	16...	11:45	1.4	79	6.0
NOV					MAY				
05...	13:20	1.6	98	3.5	13...	15:00	1.3	70	3.0
DEC					JUN				
10...	11:25	1.6	130	1.0	13...	09:30	1.3	109	11.5
JAN 1985					JUL				
10...	09:40	1.4	132	1.0	16...	09:00	1.4	133	16.5
FEB					AUG				
12...	11:05	1.5	129	1.0	14...	14:15	1.4	98	13.5
MAR					SEP				
18...	13:25	1.5	125	4.5	16...	13:30	1.4	105	12.5

07105928 LITTLE FOUNTAIN CREEK NEAR FORT CARSON, CO. (LAT 38 40 49N LONG 104 51 06W)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)
OCT 1984					MAY 1985				
10...	10:50	35	102	7.0	14...	09:35	28	48	3.0
NOV					22...	14:35	71	89	5.5
05...	14:20	23	105	4.0	JUN				
DEC					13...	11:40	6.1	115	14.5
10...	12:10	3.2	130	1.0	JUL				
JAN 1985					16...	11:35	1.2	147	20.0
10...	11:10	1.3	146	0.0	AUG				
FEB					15...	12:00	4.6	98	15.0
12...	11:55	0.51	160	1.0	SEP				
MAR					16...	14:45	2.6	108	16.5
19...	11:15	1.1	134	5.0					
APR									
16...	12:30	16	84	7.0					

07105945 ROCK CREEK ABOVE FORT CARSON RESERVATION, CO. (LAT 38 42 26N LONG 104 50 47W

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)
OCT 1984					MAY 1985				
10...	10:05	14	132	8.0	13...	13:00	14	103	4.0
NOV					22...	13:00	55	99	5.0
05...	12:45	20	118	4.5	JUN				
DEC					12...	13:50	4.0	138	14.0
10...	10:35	2.6	150	1.5	JUL				
JAN 1985					15...	15:00	1.2	168	18.5
07...	14:30	1.6	140	1.5	AUG				
FEB					15...	10:30	2.9	140	13.0
12...	10:50	1.0	157	1.0	SEP				
MAR					16...	12:35	1.8	139	14.0
18...	10:00	2.0	140	3.0					
APR									
16...	11:05	10	100	6.5					

07105950 ROCK CREEK NEAR FORT CARSON, CO. (LAT 38 41 49N LONG 104 49 39W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
OCT 1984					MAY 1985				
11...	10:25	12	132	9.0	13...	11:45	13	109	4.5
NOV					22...	11:40	46	102	5.0
06...	10:00	18	120	6.0	JUN				
DEC					12...	13:15	2.8	153	14.0
11...	09:15	2.2	130	4.0	JUL				
JAN 1985					15...	12:50	0.1	210	13.0
07...	13:50	1.1	148	4.0	AUG				
FEB					15...	10:00	1.6	178	13.0
13...	11:30	0.42	141	4.5	SEP				
MAR					16...	12:05	0.27	203	15.5
18...	11:50	1.3	141	6.0					
APR									
15...	13:05	7.6	111	10.0					

07105960 ROCK CREEK NEAR FOUNTAIN, CO. (LAT 38 39 16N LONG 104 44 48W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
OCT 1984					APR 1985				
12...	10:55	13	349	11.0	15...	15:15	8.3	441	16.0
NOV					MAY				
07...	09:10	20	295	6.0	15...	09:07	15	333	6.0
DEC					22...	10:40	48	207	7.0
11...	13:55	3.0	615	8.0	JUN				
JAN 1985					12...	10:00	2.8	750	12.0
10...	15:30	1.6	981	6.0	15...	09:25	0.9	1020	14.0
FEB					AUG				
13...	15:35	1.5	925	8.0	16...	10:50	1.8	890	15.5
MAR					SEP				
20...	09:00	1.6	955	6.5	12...	13:50	0.97	990	18.0

07106000 FOUNTAIN CREEK NEAR FOUNTAIN, CO. (LAT 38 36 08N LONG 104 40 13W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
JUL 1985					AUG 1985				
15...	10:50	64	1020	22.5	13...	11:55	130	910	21.5
					22...	12:10	109	980	24.0

07108900 ST. CHARLES RIVER AT VINELAND, CO. (LAT 38 14 44N LONG 104 29 09W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
OCT 1984					APR 1985				
03...	13:50	15	2590	16.5	19...	14:20	44	990	14.0
NOV					MAY				
13...	11:30	20	2200	9.0	15...	14:35	37	1470	23.5
DEC					JUN				
10...	09:40	17	2230	3.0	17...	15:15	37	1450	24.0
JAN 1985					JUL				
07...	16:55	15	2280	5.5	16...	14:50	16	2200	31.0
16...	13:40	17	2390	5.5	22...	10:30	90	1280	19.5
FEB					AUG				
15...	15:50	16	2200	12.0	13...	12:05	23	1940	23.5
MAR					SEP				
18...	10:10	13	2080	9.0	13...	14:45	12	2620	25.0

07109500 ARKANSAS RIVER NEAR AVONDALE, CO. (LAT 38 14 53N LONG 104 23 55W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
OCT 1984					MAY 1985				
17...	13:45	1640	640	12.5	16...	10:30	2150	540	12.0
NOV					22...	11:55	4590	520	12.5
14...	13:45	1370	640	10.5	JUN				
DEC					18...	10:05	4760	382	16.5
10...	12:10	388	1080	4.5	20...	11:50	3930	420	17.5
FEB 1985					JUL				
19...	09:30	1170	655	2.5	17...	10:40	1610	402	20.0
MAR					AUG				
18...	11:30	961	660	7.0	09...	11:05	1050	625	19.5
APR					SEP				
24...	10:40	1380	640	11.0	04...	13:15	457	810	22.5
					16...	14:35	827	682	21.0

07116500 HUERFANO RIVER NEAR BOONE, CO. (LAT 38 13 33N LONG 104 15 40W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
OCT 1984					MAY 1985				
12...	12:00	40	1080	19.5	15...	12:50	92	1390	23.0
NOV					22...	13:40	274	1130	18.0
14...	12:50	23	3000	12.0	JUN				
DEC					17...	13:15	2.4	3500	28.0
10...	13:45	18	3180	6.0	JUL				
JAN 1985					16...	13:05	26	1790	31.0
07...	13:05	75	1820	2.0	22...	12:45	50	1790	25.0
FEB					AUG				
19...	15:05	5.6	4450	22.0	12...	14:05	12	1300	32.0
APR					SEP				
18...	13:05	5.3	3900	27.0	13...	13:00	0.15	4500	30.0

SUPPLEMENTAL WATER-QUALITY DATA FOR GAGING STATIONS

07119500 APISHAPA RIVER NEAR FOWLER, CO. (LAT 38 05 28N LONG 103 58 52W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
OCT 1984 15...	13:00	24	1620	11.5	APR 1985 18...	11:10	12	1540	17.0
NOV 14...	10:30	6.4	2950	11.0	MAY 15...	10:20	71	950	14.5
DEC 10...	15:45	4.8	3050	7.0	JUN 17...	11:05	15	1590	19.0
JAN 1985 07...	10:40	4.6	3050	7.5	JUL 16...	10:35	24	1370	21.5
FEB 15...	10:45	2.9	3050	8.0	AUG 12...	11:45	9.9	2220	23.0
MAR 19...	10:40	22	1170	10.5	SEP 13...	11:00	20	1690	18.0

07121500 TIMPAS CREEK AT MOUTH NEAR SWINK, CO. (LAT 38 00 10N LONG 103 39 18W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
OCT 1984 16...	13:55	58	1670	10.5	APR 1985 19...	09:55	58	1590	14.0
NOV 15...	15:40	146	1320	7.5	MAY 13...	10:35	163	1120	11.0
DEC 20...	15:50	19	3260	9.0	JUN 07...	10:05	90	1290	19.0
JAN 1985 16...	14:30	16	3300	8.0	AUG 07...	16:25	74	1650	26.5
FEB 11...	13:25	13	3300	9.0	10...	15:10	50	1850	27.0
MAR 20...	16:50	143	1180	13.0	SEP 05...	18:05	51	2240	22.5

07122400 CROOKED ARROYO NEAR SWINK, CO. (LAT 37 58 56N LONG 103 35 52W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
OCT 1984 16...	12:40	45	1080	9.0	APR 1985 19...	08:30	16	1400	12.5
NOV 15...	13:50	39	1570	18.0	MAY 09...	17:05	23	1460	19.5
DEC 20...	13:35	3.1	3160	9.5	JUN 07...	08:45	23	1320	18.5
JAN 1985 16...	15:40	2.2	3210	7.0	JUL 10...	12:35	7.3	2230	23.0
FEB 11...	15:05	1.9	3400	8.5	AUG 01...	14:45	30	1490	24.5
MAR 21...	16:20	15	1400	13.5	SEP 05...	14:25	4.2	2500	22.0

07123000 ARKANSAS RIVER AT LA JUNTA, CO. (LAT 37 59 26N LONG 103 31 55W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
NOV 1984 09...	14:45	434	--	9.0	APR 1985 10...	14:35	332	--	18.0
23...	15:10	278	--	8.0	MAY 03...	14:00	362	--	27.0
DEC 07...	15:10	197	--	9.0	JUL 03...	13:10	89	--	27.0
21...	14:10	136	--	4.0	17...	11:15	114	--	29.0
JAN 1985 17...	13:50	681	--	1.5	AUG 12...	14:15	99	--	33.0
FEB 28...	14:20	357	--	3.0	29...	14:15	54	--	30.0
MAR 14...	14:40	57	--	10.0	SEP 05...	13:40	42	--	24.0
25...	15:50	283	--	15.0					

07123675 HORSE CREEK NEAR LAS ANIMAS, CO. (LAT 38 05 07N LONG 103 21 10W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
OCT 1984 02...	15:20	25	3560	21.0	MAY 1985 13...	12:35	82	2810	9.5
NOV 15...	11:30	12	4400	8.5	JUN 04...	13:20	54	2040	17.0
DEC 19...	09:10	10	4490	2.5	21...	11:10	57	1620	21.0
JAN 1985 15...	15:30	9.1	4640	16.0	JUL 09...	15:00	11	4080	27.0
FEB 13...	08:35	9.6	4630	2.0	29...	12:10	92	9900	22.0
MAR 20...	13:50	11	4790	14.5	31...	16:10	185	5150	28.0
APR 16...	08:50	17	3650	13.0	SEP 05...	12:00	16	12400	21.5

07124000 ARKANSAS RIVER AT LAS ANIMAS, CO. (LAT 38 04 51N LONG 103 13 09W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
OCT 1984				
02...	13:40	274	1450	18.5
NOV				
15...	10:15	315	1740	6.5
DEC				
20...	11:20	172	2500	0.0
FEB 1985				
05...	15:05	668	160	0.0
MAR				
19...	12:40	104	2590	14.0
APR				
17...	14:50	612	1080	19.0
MAY 1985				
24...	14:30	2750	950	19.0
JUN				
06...	16:20	1060	980	22.5
JUL				
02...	14:15	166	2060	27.0
09...	11:35	51	3000	22.5
31...	11:00	1240	1640	23.5
SEP				
03...	15:40	50	4790	28.0

07124200 PURGATOIRE RIVER AT MADRID, CO. (LAT 37 07 46N LONG 104 38 20W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
OCT 1984				
05...	11:55	54	392	14.0
NOV				
09...	08:45	34	332	2.0
DEC				
10...	12:45	41	430	5.0
JAN 1985				
21...	15:50	24	390	0.0
FEB				
26...	13:40	24	400	--
MAR				
29...	09:20	27	240	3.5
APR				
26...	10:55	75	196	9.0
MAY 1985				
09...	18:05	273	224	14.5
15...	12:50	195	246	13.5
31...	12:30	263	230	14.5
JUN				
14...	15:30	352	280	16.5
26...	10:15	259	225	14.5
JUL				
29...	14:05	120	345	21.0
AUG				
01...	14:00	632	244	15.0
26...	14:40	46	375	24.0
SEP				
25...	13:10	37	374	16.0

07124300 LONG CANYON CREEK NEAR MADRID, CO. (LAT 37 06 53N LONG 104 36 17W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
OCT 1984				
05...	10:40	1.4	544	13.0
NOV				
08...	15:55	0.87	462	10.5
DEC				
10...	11:45	0.54	570	5.5
JAN 1985				
21...	13:30	0.67	486	2.0
FEB				
26...	11:55	0.74	446	--
MAR				
29...	09:05	1.8	515	3.5
APR 1985				
26...	09:00	2.7	322	8.0
MAY				
31...	10:25	7.3	555	12.0
JUN				
25...	16:35	2.5	525	25.0
JUL				
29...	12:10	1.5	441	22.5
AUG				
26...	13:15	0.51	530	26.0
SEP				
25...	10:10	0.99	525	12.0

07124410 PURGATOIRE RIVER BELOW TRINIDAD LAKE, CO. (LAT 37 08 37N LONG 104 32 49W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
OCT 1984				
05...	13:20	11	349	18.5
NOV				
09...	10:50	0.04	322	9.0
DEC				
10...	15:30	0.28	400	6.5
JAN 1985				
22...	09:50	0.01	1880	0.0
FEB				
26...	16:15	26	385	0.0
MAR				
29...	13:10	78	387	6.0
APR 1985				
26...	14:05	261	260	9.5
JUN				
04...	12:05	351	350	12.5
25...	12:30	27	348	15.0
JUL				
29...	16:10	182	318	18.0
AUG				
23...	13:50	262	344	19.0
SEP				
25...	16:30	117	349	14.5

07128500 PURGATOIRE RIVER NEAR LAS ANIMAS, CO. (LAT 38 02 02N LONG 103 12 00W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
OCT 1984				
02...	12:00	63	1970	18.0
NOV				
14...	16:00	29	3290	11.0
JAN 1985				
18...	12:00	50	3700	1.0
FEB				
12...	16:10	36	3900	0.0
MAR				
19...	13:05	79	2710	12.5
APR				
17...	16:30	7.4	3690	22.0
MAY 1985				
13...	14:10	91	1760	10.5
24...	11:35	559	1580	16.5
30...	15:55	41	1770	26.0
JUN				
10...	14:15	36	1500	26.5
JUL				
09...	13:25	3.3	4250	28.0
31...	13:40	8.5	3410	30.0
SEP				
04...	09:10	3.7	4550	20.5

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
07130500	ARKANSAS RIVER BELOW JOHN MARTIN RESERVOIR, CO. (LAT 38 05 02N LONG 102 55 10								
OCT 1984					APR 1985				
04...	10:40	379	1760	16.5	17...	12:15	1280	1830	12.0
NOV					MAY				
14...	12:00	8.4	2210	10.0	14...	15:55	215	1780	15.5
DEC					28...	17:00	2880	1780	17.5
19...	11:00	1.0	2670	4.0	JUN				
JAN 1985					06...	13:55	1050	1730	18.0
17...	12:35	1.4	2410	5.0	AUG				
FEB					07...	13:40	495	1600	22.0
13...	11:30	3.4	2570	6.5	SEP				
MAR					04...	13:40	662	1610	22.5
20...	11:25	74	1750	6.0	24...	16:50	317	1640	19.0
07133000	ARKANSAS RIVER AT LAMAR, CO. (LAT 38 06 24N LONG 102 37 04W)								
OCT 1984					MAY 1985				
16...	09:25	49	2630	9.0	15...	10:55	48	3700	15.5
NOV					29...	11:35	1890	1850	19.0
13...	16:50	11	3910	14.0	JUN				
JAN 1985					06...	11:00	476	1960	19.5
18...	08:45	34	4700	1.5	JUL				
FEB					08...	14:15	591	1710	24.0
13...	14:15	34	4600	7.0	AUG				
MAR					06...	15:15	17	3310	26.0
19...	16:25	14	4580	14.0	SEP				
APR					05...	09:40	19	3010	19.0
17...	09:25	710	1910	12.0					
07134180	ARKANSAS RIVER NEAR GRANADA, CO. (LAT 38 05 44N LONG 102 18 37W)								
OCT 1984					MAY 1985				
15...	15:25	132	3420	15.0	15...	08:55	170	3300	13.5
NOV					29...	09:40	1690	1910	21.0
14...	08:50	141	4180	8.5	JUN				
DEC					06...	09:35	744	2090	18.0
19...	14:45	128	4320	4.0	JUL				
JAN 1985					08...	16:05	481	1820	24.0
17...	15:50	130	4590	6.0	AUG				
FEB					07...	09:05	136	3990	20.0
13...	16:35	118	4380	17.5	SEP				
MAR					04...	16:10	85	3080	23.5
20...	09:05	112	4390	9.5					
APR									
16...	15:05	613	1970	16.0					
08217500	RIO GRANDE AT WAGONWHEEL GAP, CO. (LAT 37 46 01N LONG 106 49 51W)								
OCT 1984					APR 1985				
16...	09:35	431	92	0.0	23...	09:35	469	101	4.0
NOV					MAY				
14...	08:45	228	104	1.0	29...	08:05	2890	51	3.0
DEC					JUN				
18...	09:00	134	170	0.0	11...	12:25	4380	58	7.5
JAN 1985					JUL				
17...	10:15	116	104	0.0	02...	09:30	1750	5	7.5
FEB					AUG				
26...	08:50	122	150	0.0	07...	08:45	1080	60	11.0
MAR					SEP				
26...	09:45	180	116	0.0	04...	09:00	327	90	12.5
08218500	GOOSE CREEK AT WAGONWHEEL GAP, CO. (LAT 37 45 07N LONG 106 49 46W)								
DEC 1984					FEB 1985				
19...	10:30	17	--	0.5	15...	10:00	19	--	0.5
08219500	SOUTH FORK RIO GRANDE AT SOUTH FORK, CO. (LAT 37 39 25N LONG 106 38 55W)								
DEC 1984					MAR 1985				
19...	12:00	64	--	0.5	11...	12:00	69	--	0.0
JAN 1985					APR				
16...	11:00	48	--	0.0	24...	12:00	527	--	5.0
FEB									
15...	11:00	39	--	0.0					

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
08220000 RIO GRANDE NEAR DEL NORTE, CO. (LAT 37 41 22N LONG 106 27 38W)									
OCT 1984					FEB 1985				
01...	09:30	523	--	8.5	01...	11:00	195	--	0.0
22...	11:30	637	--	1.0	15...	14:00	230	--	0.0
NOV					MAR				
01...	10:00	475	--	3.5	01...	10:30	235	--	0.0
12...	09:30	378	--	0.0	11...	14:00	303	--	0.0
20...	09:00	194	--	0.0	20...	11:30	294	--	1.5
DEC					APR				
03...	10:00	204	--	0.0	22...	11:00	1360	--	6.0
10...	10:00	235	--	0.0	MAY				
20...	10:30	255	--	0.0	01...	11:00	1450	--	8.0
JAN 1985									
02...	10:00	210	--	0.0					
16...	13:00	235	--	0.0					
08224110 SAN LUIS CREEK NEAR PONCHA PASS, CO. (LAT 38 24 22N LONG 106 03 49W)									
OCT 1984					APR 1985				
15...	11:40	0.95	190	1.5	22...	13:30	2.9	224	9.5
NOV					MAY				
13...	10:55	1.8	191	0.0	28...	11:15	3.5	184	9.5
DEC					JUN				
17...	11:35	0.74	170	0.0	26...	11:25	1.9	151	10.5
JAN 1985					JUL				
17...	15:30	0.98	88	0.0	26...	11:25	1.3	189	12.5
FEB					AUG				
25...	12:55	1.1	202	0.0	28...	11:25	0.74	229	14.0
MAR									
25...	12:00	1.5	183	0.5					
08224113 SAN LUIS CREEK ABOVE VILLA GROVE, CO. (LAT 38 24 04N LONG 106 03 51W)									
OCT 1984					APR 1985				
15...	12:05	0.95	230	2.0	22...	14:20	3.4	273	10.5
NOV					MAY				
13...	11:35	2.5	212	0.0	28...	12:05	3.6	205	12.0
DEC					JUN				
17...	12:15	1.6	180	0.0	26...	12:20	2.0	168	11.5
JAN 1985					JUL				
17...	14:45	1.3	207	0.0	26...	12:10	1.3	211	13.5
FEB					AUG				
25...	13:30	1.2	215	0.0	28...	12:15	0.72	238	15.5
MAR									
25...	12:30	2.4	198	2.0					
08240000 RIO GRANDE AB MOUTH TRINCHERA C NR LASAUSES, CO. (LAT 37 18 58N LONG 105 44 32									
OCT 1984					JAN 1985				
30...	13:00	115	--	9.0	08...	12:00	243	--	0.0
DEC					FEB				
13...	11:30	303	--	0.5	07...	14:00	199	--	0.0
08246500 CONEJOS RIVER NEAR MOGOTE, CO. (LAT 37 03 14N LONG 106 11 13W)									
OCT 1984					FEB 1985				
01...	11:30	78	--	9.5	01...	15:00	44	--	0.0
10...	12:30	175	--	8.0	15...	09:00	48	--	0.0
22...	14:00	146	--	2.0	MAR				
NOV					12...	09:30	141	--	1.0
01...	12:30	112	--	6.0	20...	13:30	91	--	3.0
12...	15:00	101	--	3.5	APR				
20...	13:00	61	--	1.0	01...	10:00	111	--	2.0
DEC					10...	17:00	495	--	9.0
03...	14:00	68	--	0.0	19...	13:30	963	--	6.0
10...	12:00	66	--	0.5	MAY				
20...	15:00	70	--	0.0	07...	15:00	1540	--	8.5
JAN 1985					20...	17:30	1680	--	7.5
02...	15:00	56	--	0.0	JUN				
15...	10:00	61	--	0.0	03...	16:30	1960	--	15.0

08247500 SAN ANTONIO RIVER AT ORTIZ, CO. (LAT 36 59 35N LONG 106 02 17W)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)
OCT 1984					FEB 1985				
10...	11:00	1.2	--	9.0	01...	14:00	2.7	--	0.0
22...	12:30	4.3	--	2.0	MAR				
NOV					12...	12:30	110	--	2.0
01...	10:00	6.8	--	4.5	20...	12:30	22	--	5.0
12...	13:30	9.2	--	3.0	APR				
20...	11:00	4.3	--	0.0	01...	13:30	13	--	4.0
DEC					10...	16:00	222	--	6.0
03...	10:00	2.9	--	0.0	MAY				
10...	10:30	4.6	--	0.5	07...	11:00	624	--	4.0
20...	13:30	3.9	--	0.0	20...	13:00	183	--	8.0
JAN 1985					JUN				
02...	14:00	6.8	--	0.0	03...	13:00	60	--	16.5

08248000 LOS PINOS RIVER NEAR ORTIZ, CO. (LAT 36 58 56N LONG 106 04 23W)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)
OCT 1984					FEB 1985				
01...	13:30	20	--	12.0	01...	13:00	17	--	0.0
10...	10:00	28	--	7.0	MAR				
22...	11:30	40	--	1.0	12...	10:30	78	--	1.5
NOV					20...	11:30	56	--	2.5
01...	09:30	42	--	2.0	APR				
12...	12:30	57	--	2.0	01...	11:30	34	--	2.0
20...	10:00	10	--	0.0	10...	14:30	277	--	7.0
DEC					MAY				
03...	11:30	26	--	0.0	07...	13:00	1470	--	6.5
10...	09:30	26	--	0.5	10...	16:30	1420	--	10.0
10...	11:30	30	--	0.5	20...	15:30	861	--	9.0
20...	13:00	23	--	0.0	JUN				
JAN 1985					03...	15:00	813	--	16.0
02...	12:00	28	--	0.0					

08249000 CONEJOS RIVER NEAR LASAUSES, CO. (LAT 37 18 01N LONG 105 44 47W)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)
OCT 1984					JAN 1985				
01...	12:30	16	--	12.0	02...	09:30	119	--	0.0
10...	13:00	18	--	14.5	09...	15:00	107	--	2.5
22...	15:30	27	--	5.5	FEB				
NOV					01...	09:30	49	--	0.0
12...	14:00	116	--	5.5	07...	12:00	100	--	0.0
20...	13:00	88	--	2.5	MAR				
DEC					01...	09:00	113	--	3.5
01...	12:30	66	--	1.0	11...	15:30	417	--	4.0
10...	09:00	86	--	0.5	20...	15:00	160	--	8.0
20...	10:00	154	--	0.0	MAY				
					01...	14:30	704	--	12.5

384313104431801 - SC01506625AAD WIDEFIELD NO. 14.

LOCATION.--Lat 38° 43' 13", long 104° 43' 18", in SE¼NE¼NE¼ sec. 25, T.15S., R.66W., El Paso County, Hydrologic Unit 11020003.

WELL CHARACTERISTICS.--Municipal well, diameter 18 in, depth 48 ft, screened 37 to 48 ft.

PERIOD OF RECORD.--January 1982 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
DEC 27...	12:00	1370	6.7	13.5	11.0	46
MAY 31...	14:00	1480	7.2	13.0	9.90	48
AUG 30...	13:45	1380	7.2	13.0	11.0	46

384407104434801 - SC01506624BAD1 WIDEFIELD NO. 4.

LOCATION.--Lat 38°44'07", long 104°43'48", in SE¼NE¼NE¼ sec. 24, T.15S., R.66W., El Paso County, Hydrologic Unit 11020003.
AQUIFER.--Widefield of Fountain Alluvium.
WELL CHARACTERISTICS.--Municipal well, diameter 16 in., depth 71 ft., screened 41 to 71 ft.
DATUM.--Elevation of land surface is 5,685 ft above National Geodetic Verticle Datum of 1929, from topographic map.
PERIOD OF RECORD.--February 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
DEC 27...	11:40	705	6.7	13.0	7.10	26
MAR 01...	14:45	668	6.9	13.0	6.50	22
MAY 31...	13:30	690	7.1	13.5	6.00	25
AUG 30...	13:15	685	7.1	13.5	6.20	25

384458104442601 - SC01506614AAD SECURITY NO. 2.

LOCATION.--Lat 38°44'58", long 104°44'26", in SE¼NE¼NE¼ sec. 14, T.15S., R.66W., El Paso County, Hydrologic Unit 11020003.
AQUIFER.--Widefield of Fountain Alluvium.
WELL CHARACTERISTICS.--Municipal well, diameter 24 in., depth 78 ft., screened 43 to 78 ft.
DATUM.--Elevation of land-surface is 5,270 ft above National Geodetic Verticle Datum of 1929, from topographic map.
PERIOD OF RECORD.--February 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
DEC 27...	10:35	540	6.7	13.0	7.20	19
MAR 01...	11:10	539	6.7	13.0	6.20	19
MAY 31...	10:55	542	7.0	13.5	6.70	18
AUG 30...	11:10	522	7.0	13.0	7.10	18

384535104450801 - SC01506611BCD2 VENETUCCI NO. 3.

LOCATION.--Lat 38°45'35", long 104°45'08", in SE¼SW¼NW¼ sec. 11, T.15S., R.66W., El Paso County, Hydrologic Unit 11020003.

AQUIFER.--Widefield of Fountain Alluvium.

WELL CHARACTERISTICS.--Irrigation well, diameter 24 in., depth 80 ft., screened unknown.

PERIOD OF RECORD.--February 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	CHLORIDE, DISSOLVED (MG/L AS CL)
MAY						
31...	12:45	470	7.1	13.0	8.20	75
AUG						
30...	12:45	460	7.1	13.0	8.70	12

384610104453501 - SC01506603DDB SECURITY NO. 14.

LOCATION.--Lat 38°46'10", long 104°45'35", in NW¼SE¼SE¼ sec. 14, T.15S., R.66W., El Paso County, Hydrologic Unit 11020003.

AQUIFER.--Widefield of Fountain Alluvium.

WELL CHARACTERISTICS.--Municipal well, diameter 24 in., depth 80 ft., screened 39 to 80 ft.

DATUM.--Elevation of land-surface is 5,780 ft above National Geodetic Verticle Datum of 1929, from topographic map.

PERIOD OF RECORD.--February 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	CHLORIDE, DISSOLVED (MG/L AS CL)
DEC						
27...	11:05	570	6.7	13.0	7.30	23
MAR						
01...	11:30	573	7.2	13.0	7.10	22
MAY						
31...	11:20	600	7.4	13.0	6.70	27
AUG						
30...	11:30	600	7.4	12.5	7.30	25

384617104455901 - SC01506603CAD STRATMOOR HILLS NO. 4.

LOCATION.--Lat 38°46'17", long 104°45'59", in SE¼NE¼SW¼ sec. 3, T.15S., R.66W., El Paso County, Hydrologic Unit 11020003.

AQUIFER.--Widefield of Fountain Alluvium.

WELL CHARACTERISTICS.--Municipal well, diameter 16 in., depth 49 ft., screened 29 to 49 ft.

DATUM.--Elevation of land surface is 5,760 ft above National Geodetic Verticle Datum of 1929, from topographic map.

PERIOD OF RECORD.--February 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	CHLORIDE, DISSOLVED (MG/L AS CL)
DEC						
27...	13:10	990	6.7	13.0	7.60	32
MAR						
01...	13:30	950	7.2	13.0	1.30	39
MAY						
31...	12:30	1010	7.2	13.0	7.20	35

EL PASO COUNTY

384328104481101 - SC01506620CDD1 - GOLF COURSE NO. 14

LOCATION.--Lat 38°43'28", long 104°48'11", in SE¼SE¼SW¼ sec. 20, T. 15S., R. 66W., El Paso County, Hydrologic Unit 11020003.

AQUIFER.--Piney Creek Alluvium.

WELL CHARACTERISTICS.--Observation well, depth 12.2 ft, diameter 2 in, screened 8 to 12 ft.

PERIOD OF RECORD.--April 1981 to current year.

WATER QUALITY DATA, WATER YEARS OCTOBER 1983 TO SEPTEMBER 1985

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	PH (STAND-ARD UNITS)	NITRO-GEN DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
JUN 17...	15:00	4900	14.5	7.5	5.0	0.13	<0.02	1.3	3.70
SEP 09...	13:35	5050	13.0	7.5	4.6	0.15	<0.02	1.2	3.40
JUN 26...	13:30	5100	12.0	7.3	--	0.03	0.61	1.1	3.70
SEP 04...	14:50	5900	14.5	7.1	3.1	0.15	0.01	1.0	2.10

384108104420701 - SC01606506DAA - FOUNTAIN NO. 2

LOCATION.--Lat 38°41'08", long 104°42'07", SE¼NE¼NE¼ sec. 6, T. 16S., R.65W., in El Paso County, Hydrologic Unit 11020003.

AQUIFER.--Fountain Alluvium.

WELL CHARACTERISTICS.--Municipal well, depth 56 ft.

PERIOD OF RECORD.--March to September 1985.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
MAR 01...	10:30	1300	7.2	13.0	4.40	49
MAY 31...	10:10	1280	7.3	12.5	4.00	49
AUG 30...	10:25	1300	7.3	13.5	4.40	48

384639104461401 - SC01506603BAC1 - MARS GAS

LOCATION.--Lat 38°46'39", long 104°46'14", in SW¼NE¼NW¼ sec. 3, T. 15S., R.66W., El Paso County, Hydrologic Unit 1102003

AQUIFER.--Fountain Alluvium.

WELL CHARACTERISTICS.--Commercial well, diameter 6 in, depth 85 ft, screened 50 to 85 ft.

DATUM.--Elevation of land surface is 5.820 ft above National Geodetic Verticle Datum of 1929, from topographic map.

PERIOD OF RECORD.--March to September 1985.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
MAR 01...	12:50	970	7.0	9.0	11.0	29
MAY 31...	12:05	940	7.1	13.5	12.0	24
AUG 30...	11:50	915	7.1	13.0	12.0	28

385323104224001 - SC01306230ACC1
LOCATION.--Lat 38°53'23", long 104°22'40", in SW¼SW¼NE¼ sec. 23, T. 13S., R. 62W., El Paso County, Hydrologic Unit 11020004.
AQUIFER.--Black Squirrel Alluvium.
WELL CHARACTERISTICS.--Municipal well, diameter 16 in, depth 176 ft, screened 116 to 176 ft.
DATUM.--Elevation of land surface is 6,160 ft above National Geodetic Verticle Datum of 1929, from topographic map
PERIOD OF RECORD.--February to September 1985.

WATER QUALITY DATA,WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	CHLORIDE, DISSOLVED (MG/L AS CL)
FEB						
08...	11:00	410	7.1	12.0	6.10	11
MAY						
13...	16:20	410	7.5	12.0	5.90	11
AUG						
16...	14:15	375	--	12.5	6.50	11

384056104415601 - SC01606505CCB - FOUNTAIN NO. 3
LOCATION.--Lat 38°40'56", long 104°41'56" in NW¼SW¼SW¼ sec. 5, T. 16S., R. 65W., El Paso County, Hydrologic Unit 11020003
AQUIFER.--Fountain Alluvium.
WELL CHARACTERISTICS.--Municipal well.
PERIOD OF RECORD.--March to September 1985.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	CHLORIDE, DISSOLVED (MG/L AS CL)
MAR						
01...	10:10	960	7.1	12.5	1.50	40
MAY						
31...	09:50	940	7.2	12.5	1.60	39
AUG						
30...	10:05	980	7.2	12.0	2.00	44

384718104463701 - SC01406633DAA - BARNES WELL
LOCATION.--Lat 38°47'18", long 104°46'37", in NE¼NE¼SE¼ sec. 33. T. 14S., R. 66W., El Paso County, Hydrologic Unit 11020003.
AQUIFER.--Fountain Alluvium.
WELL CHARACTERISTICS.--Domestic well, depth 72 ft, diameter 6 in.
PERIOD OF RECORD.--March to September 1985.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	CHLORIDE, DISSOLVED (MG/L AS CL)
MAR						
01...	13:50	1300	7.2	10.5	14.0	31
MAY						
31...	11:50	--	7.3	13.0	14.0	34
AUG						
30...	12:10	1400	7.2	13.5	15.0	38

384331104473401 - SC01506621CCB - GOLF COURSE NO. 22
LOCATION.--Lat 38°43'31", long 104°47'34", in NW¼SW¼SW¼ sec. 21, T. 15S., R. 66W., El Paso County, Hydrologic Unit 11020003.
AQUIFER.--Piney Creek Alluvium.
WELL CHARACTERISTICS.--Observation well, depth 18.2 ft, diameter 2 in, screened 14 to 18 ft.
PERIOD OF RECORD.--September 1981 to current year.

WATER QUALITY DATA, WATER YEARS OCTOBER 1983 TO SEPTEMBER 1985

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	PH (STAND- ARD UNITS)	NITRO- GEN DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
SEP									
09...	12:30	2150	--	7.7	6.0	0.13	0.02	1.2	4.80
JUN									
26...	13:50	2350	15.0	7.5	--	<0.01	<0.01	1.0	3.20
SEP									
04...	15:25	2000	14.0	7.4	3.7	0.10	0.03	0.8	2.90

384316104480101- SC01506629ABD - GOLF COURSE NO. 17
LOCATION.--Lat 38°43'16", long 104°48'01", in SE¼NW¼NE¼ sec. 29, T. 15S., R. 66W., El Paso County, Hydrologic Unit 11020003.
AQUIFER.--Piney Creek Alluvium.
WELL CHARACTERISTICS.--Observation well, depth 23.8 ft, diameter 2 in , screened 19.5 to 23.8 ft.
PERIOD OF RECORD.--April 1981 to current year.

WATER QUALITY DATA, WATER YEARS OCTOBER 1982 TO SEPTEMBER 1985

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	PH (STAND- ARD UNITS)	NITRO- GEN DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
JUN									
17...	15:20	--	--	--	8.0	0.90	<0.02	1.6	6.40
SEP									
09...	13:05	2000	--	7.7	7.3	0.04	<0.02	0.9	6.40
JUN									
26...	13:00	1900	14.5	7.6	--	0.03	0.01	1.6	<0.10
SEP									
04...	15:10	2300	14.0	7.5	5.1	0.09	<0.01	0.7	4.40

ADAMS COUNTY

395727104071701 SC 1-60-17CDD2. Carl Sanden. Drilled irrigation water-table well in alluvium. Diameter, 18 in. Depth, 87 ft. MP, 1.7 ft, above lsd. Elevation of land surface, 4,830.8 ft. Records available: 1942-84.

Highest water level, 25.09 ft, below lsd, Nov. 19, 1942; lowest water level, 50.63 ft, below lsd, June 10, 1982.

1985, not measured

395643104183301 SC 1-62-22DCA. Charles B. Nordloh. Drilled irrigation water-table well in alluvium. Diameter, 18 in. Depth, 82 ft. MP, 0.8 ft, below lsd. Elevation of land surface, 4,994 ft. Records available: 1946-85.

Highest water level, 44.21 ft, below lsd, Nov. 25, 1949; lowest water level, 61.9 ft, below lsd, Mar. 12, 1973.

Mar. 26, 1985 50.55 ft

ALAMOSA COUNTY

372154105555401 NA36- 9-13AAA. U.S. Geological Survey. Jetted observation water-table well in basin-fill deposits. Diameter, 3 in. Depth, 10 ft. MP, 2.3 ft, above lsd. Elevation of land surface, 7,558.1 ft. Records available: 1949-64, 1966-75, 1980-85.

Highest water level, 0.07 ft, below lsd, May 5, 1968; lowest water level, 6.17 ft, below lsd, Jan. 6, 1964.

Jan. 17, 1985 3.20 ft

373409106021501 NA39- 9-31CCC. U.S. Geological Survey. Jetted observation water-table well in basin-fill deposits. Diameter, 3 in. Depth, 10 ft. MP, 1.70 ft, above lsd. Elevation of land surface, 7,567.4 ft. Records available: 1948-64, 1966-75, 1977, 1980, 1985.

Highest water level, 1.42 ft, below lsd, June 26, 1962; lowest water level, 5.78 ft, below lsd, Jan. 27, 1969.

Jan. 16, 1985 4.54

BACA COUNTY

373058102151500 SC29-43-15CCB. James Thompson. Drilled observation artesian well in Cheyenne Sandstone Member of Purgatoire Formation. Diameter, 1.25 in. Depth, 343 ft, (reported). MP, 1.40 ft, above lsd. Elevation of land surface, 3,913 ft. Records available: 1955-84.

Highest water level, 48.60 ft, below lsd, Jan. 16, 1975; lowest water level, 68.74 ft, below lsd, Feb. 2, 1978.

1985, not measured

BENT COUNTY

380228103105600 SC23-52-13DDC. B. F. Owens. Drilled stock water-table well in valley-fill deposits. Diameter, 6 in. Depth, 19 ft. MP, 2.0 ft, above lsd. Elevation of land surface, 3,895 ft. Records available: 1959-75, 1979-85.

Highest water level, 8.6 ft below lsd, Dec. 4, 1962; lowest water level, 16.6 ft, below lsd, Nov. 13, 1964.

Mar. 20, 1985 14.21 ft

ELBERT COUNTY

391717103475001 SC 9-57- 8ABB. J. C. Mattson. Drilled observation water-table well in alluvium. Diameter, 6 in. Depth, 28 ft. MP, 0.20 ft, above lsd. Elevation of land surface, 5,475 ft. Records available: 1945-85.

Highest water level, 5.00 ft, below lsd, July 2, 1947; lowest water level, 7.92 ft below lsd, Mar. 2, 1977.

Mar. 26, 1985 6.14 ft

EL PASO COUNTY

390441104184501 SC11-62-22ADC. Anthony Eurich. Drilled irrigation water-table well in alluvium. Diameter, 24 in. Depth, 44 ft. MP, 0.80 ft, above lsd. Elevation of land surface, 6,364.8 ft. Records available: 1945-85.

Highest water level, 5.49 ft, below lsd, Aug. 9, 1947; lowest water level, 8.48 ft below lsd, July 11, 1952.

Mar. 26, 1985 6.75 ft

HUERFANO COUNTY

373922104501401 SC-27-67-36ACB. State of Colorado. Drilled stock water-table well in Trinidad Sandstone. Diameter, 7 in. Depth, 62 ft. MP, 2.2 ft, above lsd. Elevation of land surface, 6,282 ft. Records available: 1950-75, 1980, 1983-84.

Highest water level, 41.33 ft, below lsd, May 7, 1980; lowest water level, 48.8 ft below lsd, Apr. 26, 1955.

1985, not measured (pumping)

KIOWA COUNTY

383230102274601 SC17-45-31ABA. U.S. Government. Bored observation water-table well in valley-fill deposits. Diameter, 1.25 in. Depth, 11 ft. MP, 1.5 ft, above lsd. Elevation of land surface, 3,954.4 ft. Records available: 1959-85.

Highest water level, 4.99 ft, below lsd, Apr. 27, 1983; lowest water level, 8.6 ft below lsd, Nov. 10, 1960.

Apr. 2, 1985 5.40 ft

KIT CARSON COUNTY

392230103052000 SC 8-51-10ABB2. Drilled irrigation water-table well in alluvium and Meade Formation. Diameter, 18 in. Depth, 74 ft. MP, 0.1 ft, above lsd. Elevation of land surface, 4,870 ft. Records available: 1951-85.

Highest water level, 30.4 ft, below lsd, Jan. 15, 1952; lowest water level, 40.64 ft, below lsd, Jan. 8, 1979.

Jan. 16, 1985 36.00 ft

391110102030100 SC10-42-12DCD. U.S. Government. Drilled observation water-table well in Ogallala Formation. Diameter, 1.25 in. Depth, 273 ft. MP, 3.30 ft, above lsd. Elevation of land surface, 3,997.7 ft. Records available: 1955-85.

Highest water level, 101.67 ft, below lsd, Aug. 12, 1955; lowest water level, 133.63 ft, below lsd, Jan. 16, 1985.

Jan. 16, 1985 133.63 ft

LARIMER COUNTY

402426105013001 SB 5-68-17AAB. George Peak. Drilled irrigation water-table well in alluvium. Diameter, 48 in. Depth, 24 ft. MP, 1.0 ft, above lsd. Elevation of land surface, 4,948 ft. Records available: 1941-85.

Highest water level, 5.43 ft, below lsd, Oct. 27, 1947; lowest water level, 14.45 ft below lsd. Apr. 20, 1949.

Mar. 27, 1985 10.13 ft

403333104585001 SB 7-68-23CBB1. W. A. Scott. Drilled observation water-table well in alluvium. Diameter, 48 in. Depth, 52 ft. MP, 2.70 ft, above lsd. Elevation of land surface, 4,902 ft. Records available: 1941-79, 1982-84.

Highest water level, 4.93 ft below lsd. Nov. 6, 1957; lowest water level, 10.5 ft below lsd, Mar. 15, 1975.

1985, Destroyed

LARIMER COUNTY--Continued

404517105014201 SB 9-68-17BAA. Harlan Seaworth. Drilled irrigation water-table well in alluvium. Diameter, 20 in. Depth, 92 ft. MP, 0.40 ft, above lsd. Elevation of land surface, 5,329 ft. Records available: 1939-79, 1983-84.

Highest water level, 29.02 ft below lsd, Apr. 3, 1959; lowest water level, 64.45 ft, below lsd, Nov. 9, 1956.

1985, not measured

LINCOLN COUNTY

385724103155601 SC13-53- 1DDC. U.S. Government. Bored observation water-table well in alluvium. Diameter, 1.25 in. Depth, 8 ft. MP, 1.0 ft, above lsd. Elevation of land surface, 4,720 ft. Records available: 1959-77, 1979-84.

Highest water level, 3.5 ft, below lsd, Apr. 4, 1960; lowest water level, 5.28 ft, below lsd, Mar. 2, 1977.

1985, not measured

LOGAN COUNTY

404256103064401 SB 9-51-31BBB. Frank Manuello. Drilled irrigation water-table well in alluvium. Diameter unknown. Depth, 106 ft. MP, 1.0 ft, above lsd. Elevation of land surface, 3,865 ft. Records available: 1947-85.

Highest water level, 2.89 ft below lsd, Oct. 6, 1947; lowest water level, 7.16 ft, below lsd, Jan. 10, 1975.

Mar. 26, 1985 5.37 ft

405209102481700 SB10-49- 2CBC. G. E. Henery. Drilled irrigation water-table well in alluvium. Diameter, 18 in. Depth, 32 ft. MP, 1.50 ft above lsd. Elevation of land surface, 3,711 ft. Records available: 1947-79, 1982-83,1985.

Highest water level, 3.95 ft, below lsd, Apr. 7, 1958; lowest water level, 9.03 ft below lsd, Nov. 6, 1964.

Mar. 26, 1985 5.72 ft

MORGAN COUNTY

401452103480200 SB 3-57- 6DCC. City of Fort Morgan. Dug and drilled observation water-table well in alluvium. Diameter, 12 in. Depth, 180 ft. MP, 5.0 ft below lsd. Elevation of land surface, 4,325.6 ft. Records available: 1940-85.

Highest water level, 39.88 ft, below lsd, Jan. 20-21, 1955; lowest water level, 56.76 ft, below lsd, Sept. 5, 1965.

Mar. 26, 1985 50.60 ft

401424103505200 SB 3-58-11BCC. Alex Stark. Drilled irrigation water-table well in alluvium. Diameter, 16 in. Depth, 145 ft. MP, 2.40 ft, above lsd. Elevation of land surface, 4,366.2 ft. Records available: 1939-65, 1967, 1970-79, 1982-85

Highest water level, 51.85 ft, below lsd, Nov. 19, 1942; lowest water level, 69.87 ft, below lsd, Nov. 5, 1964.

Mar. 26, 1985 61.79 ft

401214104053401 SB 3-60-22CCC. B. A. Holden. Drilled irrigation water-table well in alluvium. Diameter, 24 in. Depth, 120 ft. MP, 0.20 ft, above lsd. Elevation of land surface, 4,568.4 ft. Records available: 1936-85.

Highest water level, 49.44 ft, below lsd, Apr. 11, 1938; lowest water level, 103.83 ft, below lsd, Mar. 25, 1980.

Mar. 29, 1985 100.45 ft

401915103321100 SB 4-55- 9DCC. Rudolph and Schooley. Drilled irrigation water-table well in alluvium. Diameter, 14 in. Depth, 88 ft. MP, 2.0 ft, above lsd. Elevation of land surface, 4.175.2 ft. Records available: 1930, 1932-79, 1982-84.

Highest water level, 14.75 ft, below lsd, Oct. 19, 1949; lowest water level, 25.76 ft, below lsd, Mar. 11, 1969.

1985, Destroyed

MORGAN COUNTY--Continued

402113103580300 SB 5-59-34CAD. G. Williams. Dug domestic and stock water-table well in alluvium. Diameter, 36 in. Depth, 20 ft. MP, 2.20 ft, above lsd. Elevation of land surface, 4,362 ft, above msl. Records available: 1947-85.

Highest water level, 7.16 ft, below lsd, Sept. 9, 1948; lowest water level, 17.47 ft, below lsd, Mar. 27, 1985.

Mar. 27, 1985 17.47 ft

OTERO COUNTY

380706103534200 SC22-58-21DAA. C. Meyer. Drilled irrigation water-table well in alluvium. Diameter, 24 in. Depth, 56 ft. MP, 1.90 ft, above lsd. Elevation of land surface, 4,282 ft. Records available: 1928-31, 1933-85.

Highest water level, 25.54 ft, below lsd, Mar. 28, 1955; lowest water level, 36.61 ft, below lsd, Mar. 6, 1979.

Mar. 19, 1985 30.35 ft

380334103434700 SC23-57-12DAD. American Crystal Sugar Co. Drilled irrigation water-table well in alluvium. Diameter, 18 in. Depth, 27 ft. MP, 2.00 ft, above lsd. Elevation of land surface, 4,186 ft. Records available: 1944-78, 1980-85.

Highest water level, 8.87 ft, below lsd, Dec. 4, 1946; lowest water level, 15.78 ft, below lsd, Nov. 27, 1956.

Mar. 18, 1985 12.06

PHILLIPS COUNTY

403230102070901 SB 7-43-35ABB2. Rosa Norris. Drilled irrigation water-table well in Ogallala Formation. Diameter, 16 in. Depth, 300 ft. MP, 0.70 ft, above lsd. Elevation of land surface, 3,601 ft. Records available: 1976-85.

Highest water level, 46.06 ft, below lsd, Feb. 20, 1974; lowest water level, 64.51 ft, below lsd, Dec. 29, 1984.

Dec. 29, 1984 64.51 ft

PROWERS COUNTY

380532102311600 SC22-45-31-CBB. U.S. Geological Survey. Driven observation water-table well in alluvium. Diameter, 1.25 in. Depth, 11 ft. MP, 3.5 ft, above lsd. Elevation of land surface, 3,567 ft. Records available: 1955-85.

Highest water level, 0.10 ft below lsd, Aug. 24, 1967; lowest water level, 6.00 ft below lsd, May 3, 1965.

Jan. 24, 1985	4.31 ft
May 30, 1985	4.27 ft
Aug. 5, 1985	4.00 ft
Sept. 30, 1985	3.88 ft

PUEBLO COUNTY

381340104205601 SC21-62- 9CCC. Susie C. Potestio. Drilled irrigation water-table well in alluvium. Diameter, 15 in. Depth, 28 ft. MP, 1.1 ft, above lsd. Elevation of land surface, 4,567 ft. Records available: 1929, 1934-75, 1980-85.

Highest water level, 13.90 ft, below lsd, Nov. 16, 1965; lowest water level, 20.55 ft, below lsd, July 28, 1981.

Mar. 20, 1985 14.70 ft

381443104320701 SC21-64- 3DAC. Joseph Thomas. Drilled irrigation water-table well in alluvium. Diameter, 15 in. Depth, 35 ft. MP, 2.10 ft, above lsd. Elevation of land surface, 4,679 ft. Records available: 1934-75, 1979, 1982.

Highest water level, 12.20 ft, below lsd, Nov. 11, 1942; lowest water level, 27.50 ft, below lsd, Mar. 14, 1977.

1985, not measured

PUEBLO COUNTY--Continued

380817104043400 SC22-60-13BBC. C. J. Sindig. Drilled irrigation water-table well in alluvium. Diameter, 4 ft. Depth, 39 ft. MP, 1.0 ft, above lsd. Elevation of land surface, 4,375 ft. Records available: 1952-85.

Highest water level, 25.73 ft, below lsd, Mar. 20, 1985; lowest water level, 36.16 ft, below lsd, Nov. 28, 1956.

Mar. 20, 1985 25.73

SEDGWICK COUNTY

404741102030500 SB10-42-32DDD. U.S. Geological Survey. Drilled observation water-table well in Ogallala Formation. Diameter, 1.25 in. Depth, 207 ft. MP, 2.80 ft, above lsd. Elevation of land surface, 3,609.2 ft. Records available: 1952-85.

Highest water level, 176.34 ft, below lsd, Jan. 16, 1969; lowest water level, 193.46 ft, below lsd. Dec. 28, 1984.

Dec. 28, 1984 193.46 ft

405805102235100 SB11-45- 5BBA. F. J. Hilderman. Drilled irrigation water-table well in alluvium. Diameter, 18 in. Depth, 52 ft. MP, 0.50 ft, above lsd. Elevation of land surface, 3,540 ft. Records available: 1947-79, 1982-85.

Highest water level, 11.23 ft, below lsd, Oct. 7, 1949; lowest water level, 20.70 ft, below lsd, Jan. 6, 1975.

Mar. 26, 1985 15.82 ft

405435102364300 SB11-47-28BBB. James Jankovsky. Drilled irrigation water-table well in alluvium. Diameter, 24 in. Depth, 52 ft. MP, 0.50 ft, above lsd. Elevation of land surface, 3,624 ft. Records available: 1948-79, 1982-85.

Highest water level, 2.51 ft below lsd, June 24, 1948; lowest water level, 5.61 ft below lsd, Oct. 17, 1954.

Mar. 26, 1985 4.45 ft

WASHINGTON COUNTY

394038102481800 SC 4-49-25ADC1. Cecil Williams. Drilled irrigation water-table well in alluvium. Diameter, 18 in. Depth, 17 ft. MP, 0.20 ft, above lsd. Elevation of land surface, 4,350 ft. Records available: 1950-69, 1971-72, 1975-79, 1982-85.

Highest water level, 7.42 ft below lsd, Aug. 6, 1951; lowest water level, 16.30 ft below lsd, Jan. 4, 1979.

Apr. 10. 1985 12.82 ft

393902102561800 SC 5-50- 2AAB. Lloyd McIrwin. Drilled irrigation water-table well in alluvium. Diameter, 24 in. Depth, 54 ft. MP, 2.00 ft, above lsd. Elevation of land surface, 4,514.6 ft. Records available: 1950-67, 1969-75, 1982-85.

Highest water level, 16.44 ft, below lsd, Nov. 8, 1961; lowest water level, 22.65 ft, below lsd, July 23, 1954.

Apr. 10, 1985 18.28 ft

WELD COUNTY

400306104154701 SB 1-62-13ADD. C. M. Roark. Drilled irrigation water-table well in alluvium. Diameter, 18 in. Depth, 76 ft. MP, 3.00 ft, above lsd. Elevation of land surface, 4,824.1 ft. Records available: 1947-75, 1981, 1985.

Highest water level, 18.29 ft, below lsd, Oct. 16, 1952; lowest water level, 53.20 ft, below lsd, Mar. 12, 1981.

Mar. 26, 1985 43.45 ft

WELD COUNTY--Continued

400427104244801 SB 1-63- 2CCC. D. Trupp. Drilled irrigation water-table well in alluvium. Diameter, 20 in. Depth, 96 ft. MP, 0.30 ft, above lsd. Elevation of land surface, 4,822 ft. Records available: 1944-56, 1958-85.

Highest water level, 51.70 ft below lsd, May 1, 1950; lowest water level, 75.90 ft below lsd, Nov. 13, 1959.

Mar. 26, 1985 52.17 ft

400125104370001 SB 1-65-25CCD1. Fred Haffner, Sr. Drilled irrigation water-table well in alluvium. Diameter, 24 in. Depth, 69 ft. MP, 0.60 ft, above lsd. Elevation of land surface, 5,044 ft. Records available: 1940-83.

Highest water level, 30.29 ft, below lsd, Apr. 12, 1950; lowest water level, 45.70 ft, below lsd, Mar. 2, 1979.

1985, Destroyed

400129104483800 SB 1-66-30ADA. G. J. Mancini. Dug irrigation water-table well in alluvium. Diameter, 8 ft. Depth, 31 ft. MP, 1.15 ft, above lsd. Elevation of land surface, 4,953 ft. Records available: 1929-75, 1978-84.

Highest water level, 10.29 ft, below lsd, Oct. 12, 1933; lowest water level, 21.16 ft, below lsd, Mar. 11, 1982.

1985, not measured (pumping)

401727104133000 SB 4-61-28BBB. K. Mori. Drilled irrigation water-table well in alluvium. Diameter, 18 in. Depth, 100 ft. MP, 0.80 ft, above lsd. Elevation of land surface, 4,482 ft. Records available: 1947-79, 1982-85.

Highest water level, 21.60 ft, below lsd, Oct. 9, 1947; lowest water level, 40.60 ft, below lsd, Mar. 1, 1976.

Mar. 27, 1985 33.87 ft

401912104313700 SB 4-64-10DDD. T. E. Dwyer. Drilled irrigation water-table well in alluvium. Diameter, 24 in. Depth, 60 ft. MP, 0.60 ft, above lsd. Elevation of land surface, 4,635 ft. Records available: 1940-85.

Highest water level, 6.43 ft below lsd, Nov. 9, 1949; lowest water level, 23.64 ft below lsd, Nov. 13, 1956.

Mar. 27, 1985 10.36 ft

402753104280901 SB6-63-29BBB. H. L. Wells. Drilled irrigation water-table well in alluvium. Diameter, 4 ft. Depth, 37 ft. MP, 1.80 ft, above lsd. Elevation of land surface, 4,655 ft. Records available: 1932-79, 1982-85.

Highest water level, 7.19 ft, below lsd, Aug. 11, 1932; lowest water level, 22.85 ft, below lsd, Nov. 12, 1956.

Mar. 27, 1985 7.25 ft

402930104414301 SB 6-65-17BBC. H. W. Farr. Drilled irrigation water-table well in alluvium. Diameter, 18 in. Depth, 65 ft. MP, 0.80 ft, above lsd. Elevation of land surface, 4,761.9 ft. Records available: 1932-76, 1982-85.

Highest water level, 21.22 ft, below lsd, Aug. 1, 1932; lowest water level, 41.36 ft, below lsd, Nov. 12, 1956.

Mar. 27, 1985 24.40 ft

403032104510201 SB 6-67-12BBB. Fred Pelte. Drilled irrigation water-table well in alluvium. Diameter, 24 in. Depth, 22 ft. MP, 0.50 ft, above lsd. Elevation of land surface, 4,859 ft. Records available: 1941-75, 1982-83, 1985.

Highest water level, 5.45 ft, below lsd, Mar. 21, 1962; lowest water level, 13.30 ft, below lsd, Nov. 12, 1956.

Mar. 27, 1985 8.3 ft

403454104403701 SB 7-65-16BBB. K. Akahoshi. Drilled irrigation water-table well in alluvium. Diameter, 4 ft. Depth, 18 ft. MP, 2.70 ft, above lsd. Elevation of land surface, 4,875.1 ft. Records available: 1942-48, 1950-79, 1982-85.

Highest water level, 4.09 ft below lsd, Oct. 28, 1959; lowest water level, 7.66 ft below lsd, Mar. 27, 1985.

Mar. 27, 1985 7.66 ft

WELD COUNTY--Continued

403914104451801

SB 8-66-22AAA. Troy Jones. Dug irrigation water-table well in alluvium. Diameter, 12 ft. Depth, 31 ft. MP, 2.1 ft, above lsd. Elevation of land surface, 5,073.7 ft. Records available: 1929-85.

Highest water level, 16.20 ft, below lsd, Jan. 8, 1947; lowest water level, 22.68 ft, below lsd, Nov. 22, 1954.

Mar. 27, 1985 18.07 ft

YUMA COUNTY

401105102061101

SB 3-42-31BDD. U.S. Geological Survey. Drilled observation water-table well in Ogallala Formation. Diameter, 1.25 in. Depth, 92 ft. MP, 0.5 ft above lsd. Elevation of land surface, 3,615.8 ft. Records available: 1952-85.

Highest water level, 21.25 ft, below lsd, Aug. 14, 1952; lowest water level, 48.52 ft, below lsd, Jan. 11, 1981.

Dec. 23, 1984 44.28 ft

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FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	2.54×10^{1}	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^{0}	kilometers (km)
	Area	
acres	4.047×10^{3}	square meters (m^2)
	4.047×10^{-1}	square hectometers (hm^2)
	4.047×10^{-3}	square kilometers (km^2)
square miles (mi^2)	2.590×10^{0}	square kilometers (km^2)
	Volume	
gallons (gal)	3.785×10^{0}	liters (L)
	3.785×10^{0}	cubic decimeters (dm^3)
	3.785×10^{-3}	cubic meters (m^3)
million gallons	3.785×10^{3}	cubic meters (m^3)
	3.785×10^{-3}	cubic hectometers (hm^3)
cubic feet (ft^3)	2.832×10^{1}	cubic decimeters (dm^3)
	2.832×10^{-2}	cubic meters (m^3)
acre-feet (acre-ft)	1.233×10^{3}	cubic meters (m^3)
	1.233×10^{-3}	cubic hectometers (hm^3)
	1.233×10^{-6}	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	2.832×10^{1}	liters per second (L/s)
	2.832×10^{1}	cubic decimeters per second (dm^3/s)
	2.832×10^{-2}	cubic meters per second (m^3/s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm^3/s)
	6.309×10^{-5}	cubic meters per second (m^3/s)
million gallons per day	4.381×10^{1}	cubic decimeters per second (dm^3/s)
	4.381×10^{-2}	cubic meters per second (m^3/s)
	Mass	
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons